

## FOREWORD

This book is one of those rare volumes that will change the spirit of our age. It is both practical and inspiring. Its inspiration comes from real-life success stories - accounts of communities that have taken their future into their own hands and brought back not only jobs, but real political power and community spirit. Its practical value lies in a clear analysis of the structures that support a community's economic base, and a description of the hands-on tools needed to strengthen it. In *Short Circuit*, Richard Douthwaite has undertaken the most extensive survey yet of community economics in the industrialized world.

To fully appreciate the significance of this book, we need to ask ourselves why everything we hold dear seems to be threatened. As individuals, we face increasing insecurity in our working lives, on our streets and even within our homes. As societies, we face a ruthlessly competitive global economy, the threat of armed conflict, and a biosphere stressed to the point of collapse. In the face of all this, governments and businesses offer us, at best, a tattered, decaying safety net. *Short Circuit's* encouraging message is that the security we need can be found in our own communities by developing our local economies.

But why are communities and families fragmenting? Why are thousands of species disappearing and the world's climate becoming ever more unstable? Why is democracy slipping away, and ethnic conflict, poverty, crime and unemployment growing day by day? The root cause of all these problems often evades even the most intelligent and well-intentioned examination. The world economic system has become so complex, and the attitudes that it has given rise to so all-pervasive, that we now find it is extremely difficult to gain a clear perspective. However, there is a common thread running through these seemingly disparate crises: namely, a system of production and distribution that depends for its survival on endless expansion. This continuous growth has led to economic globalization, which essentially means the amalgamation of every local, regional and national economy into a single world system.

Economic globalization is not the result of superior economic efficiency. It is coming about because governments have been subsidizing international and long-distance trade for nearly two hundred years without stopping to assess the impact on society and nature. It is only through tax breaks, cheap fuel, and massive investments in the underlying transport and information infrastructure that apples from New Zealand displace French apples in the markets of Paris, European dairy products destroy local production in milk-rich Mongolia, and Dutch butter costs less than Kenyan butter in the shops of Nairobi.

Even a child might ask, 'Why must food be transported thousands of miles, when it can be produced right here?' This is not efficiency but economics gone mad.

Globalization has also led to the growth of huge multinational corporations that have replaced the hundreds of thousands of small businesses, shopkeepers and farmers that traditionally generated most economic activity and employment. And since big firms, unlike small ones, can threaten to move their operations to countries where the fiscal environment is easier, almost every government's ability to raise an adequate amount in tax has been reduced. Consequently, by blindly subsidizing the process of globalization, the nation-state has promoted its own demise.

Moreover, by inducing people everywhere to rely on the same narrow range of industrial resources, the global economic system has greatly increased competition at every level. As a result, unemployment in the industrialized world has soared while, in the cities of the South, populations are exploding because millions of rural families are being drawn away from local self-reliance by the promises of the consumer society - only to be plunged into urban squalor and hunger. Meanwhile, wilderness areas and biodiversity are under increasing pressure as the demand for industrial resources grows.

The system that has emerged suits nobody: in the long run, there are no winners. Even at the highest levels of society, the quality of life is declining. The threat of mergers leaves even senior managers in permanent fear of losing their jobs. As for the burgeoning list of billionaires, try though they might to fence themselves off from the collapsing social order, they cannot hide from the collapsing biosphere.

It is therefore in everyone's interest that the process of globalization be reversed. The most effective way of doing this would be for governments to get together to curb the powers of the multinationals by negotiating new trade and investment treaties that would remove the subsidies powering globalization and give local production a chance. For example, if the hidden subsidies for fossil fuel use were removed, local and national economies would become much stronger. But such international measures would not in themselves restore health to economics and communities: long-term solutions require a range of small local initiatives that are as diverse as the cultures and the environments in which they take place.

Unfortunately, many people are opposed to the creation of stronger local economics for all manner of reasons. Some, for example, imagine that the aim of economic localization is complete self-sufficiency at the village level. In fact, localization does not mean everything being produced locally, nor does it mean an end to trade. It simply means creating a better balance between local, regional, national and international markets. It also means that large corporations should have less control, and communities more, over what is produced, where, when and how, and that trading should be fair and to the benefit of both parties.

It is also sometimes feared that localization will lead to repression and intolerance. On closer examination, however, it is clear that the opposite is true: the global economy is itself nothing less than a system of structural exploitation that creates hidden slaves on the other side of the world and forces people to give up their rights to their own resources. Localization is not about isolating communities from other cultures, but about creating a new, sustainable and equitable basis on which they can interact. In the North, being responsible for our own needs means allowing the South to produce for itself, rather than for us.

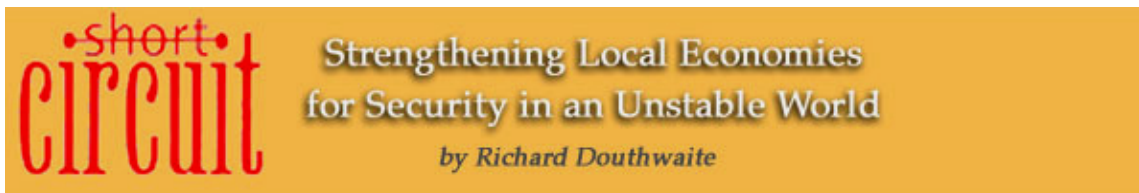
All over the world, campaigns against globalization are growing in strength as people see how it affects their lives, their high streets, and their neighbourhoods - and as they become more aware that there are alternatives. The significance of Richard Douthwaite's book is that he shows that globalization can be contained by using these alternatives in a coherent way. He also shows we can start to build alternative systems today without waiting for politicians to give us their blessing or for the world to burn.

When community initiatives work (and *Short Circuit* describes both successes and failures) they release the imagination of those involved and enable them to take further steps towards economic revitalization, stronger communities, and a healthier environment. But so far, as Richard Douthwaite points out, no community anywhere has implemented more than a few of the many techniques described in this book, so the potential for revitalization is dramatic.

This book, then, is an indispensable tool-kit for communities seeking to initiate their own renewal from within. Those that take any of the steps outlined here will find themselves at the cutting edge of the most powerful movement of the new millennium.

HELENA NORBERG-HODGE  
International Society for Ecology and Culture

ED MAYO  
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## PREFACE

One of the things I learned from writing *The Growth Illusion* was that policies designed to accelerate economic growth had concentrated so much wealth and power in the hands of multinational companies and financial institutions that national governments had left themselves inadequate powers to safeguard their citizens' interests. What could be done to dilute this concentration? I asked myself. Power once gained is rarely given up voluntarily and governments had become too weak to take it back for themselves even if they were inclined to do so, which, generally, they were not. Intrigued, I thought I might write a book on the topic and circulated an outline to people who I thought might help find the necessary finance.

An enthusiastic response came from Ed Mayo, director of the New Economics Foundation in London, who suggested that I concentrate on three chapters in the outline and turn them into a handbook on the practical techniques which communities could use to become more self-reliant economically. I thought this a good idea, he raised a small amount of money from the Goldsmith Foundation and I embarked on what we both thought would turn out to be a six-month task. I had not got very far, however, when two problems emerged.. One was that it became obvious that the sort of brief discussion of techniques I had envisaged would not serve its readers very well without some discussion on why unconventional, community-based solutions were necessary. The second was that the techniques were likely to give disappointing results if communities simply tried to use them within the existing economic system and their members' thinking went unchanged. A much longer book was therefore required. Fortunately, however, discussions with Helena Norberg Hodge, the director of the International Society for Ecology and Culture, not only helped develop my thoughts considerably but led to ISEC agreeing to use funds provided by Peter and Máire Buckley for its globalization/localization studies to make such a book possible.

Despite its wide scope, this book is still intended to be a practical guide and, as such, it has to cover its topics in reasonable depth. This means that no-one should feel obliged to read it from beginning to end. What I suggest is that people read the Introduction and Chapters One and Two before turning to whichever of the four long core chapters interests them most and then move on to the final chapter. If I've done my job properly, however, they won't skip the other core chapters altogether. Someone keen on wind energy will naturally read the community energy section - Chapter Five - but if he or she wants to finance a wind farm, Chapter Three, on local currencies, and Chapter Four, on local banking systems, have a lot of relevant ideas. Similarly, someone interested in

organic agriculture will turn to Chapter Six and then move back to the two money chapters for information on how to make a project commercially viable.

I resisted the temptation to write this book for a worldwide readership because this would have meant it being less specific and, consequently, of less value. It is intended for a British and Irish audience and I have drawn examples of the techniques in use from as close to home as possible so that they are from a similar legal and cultural framework and it is relatively easy for communities to visit projects in operation and to arrange for speakers to visit. If there are disproportionately more Irish examples than, say, Scottish ones, the fact that I live in Ireland obviously has something to do with it. However, it is also because the Irish have recently been doing disproportionately more at a community level than most other countries in Europe. This is because ten years ago they were told by their politicians that if inflation was curbed, the rate at which wages were increasing moderated and the national debt reduced as a proportion of national income through public spending cuts, businesses would increase investment, the rate of economic growth would soar and enough new jobs would be created to make a substantial reduction in the number of people who were unemployed. All this has come to pass except the jobs. Ireland's rate of growth is so high that bankers refer to the country as the Celtic Tiger. It has a large trade surplus and is one of only two or three EU members likely to meet the Maastricht Treaty criteria for participation in a single currency. But despite these 'successes', its level of unemployment shows no sign of falling and, as a result, hundreds of people have given up relying on the government or outside firms to bring jobs to their districts and have become involved in community efforts to create work themselves.

Happily, the groups they have joined stand a very much better chance of being successful than similar groups in Britain because Ireland's community structures and its social capital are very much more intact, even in areas where the population is in decline. This was demonstrated in 1994 when Muintir na Tire, an old-established national community development organisation published a report on the resources that four parishes in North Tipperary could call on 'with a view to creating enterprises as an alternative to traditional job roles that are fast becoming redundant.' Parish C was typical of what the consultants found. It is centred on a village which had a population of 1,113 in 1991, a full 10% down on the total only five years earlier. And yet it had two primary and one secondary school, a Roman Catholic Church, a community centre/parish hall which the villagers built quite recently, nine pubs, three petrol stations, four supermarkets, a post office, a draper's, a chemist, a hairdresser, a doctor's surgery, a health centre and a credit union. A mobile library visited once a week. It also had five community organisations - a tourism co-op, a festival committee which organises an annual historical pageant, a Tidy Towns committee to ensure the village looks its best for the annual national contest, a Variety Committee which puts on plays and revues, and the Gaelic Athletic Association. How many communities in England of a similar size would still have a comparable range of assets? Come to that, how many modern housing estates in Ireland would either?

Admittedly, most of the Irish groups' efforts to develop their local economies are still on the conventional 'what can we supply to outside markets?' lines but a certain 'which of

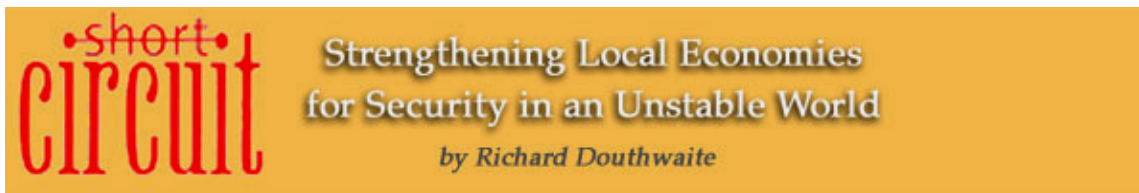
our needs can we start satisfying from our district's resources?' radicalism is creeping in. I've noted several examples of this. In spring 1995, for instance, some weeks after *The Guardian* carried a brief article about a survey of Hatherleigh, a small town in Devon, to assess the feasibility of supplying all its energy from renewable resources there, I rang the consultants in Bournemouth to request a copy. "Another Irish address" the man I spoke to commented. "That's interesting. We've had more enquiries about the study from Ireland than we've had from this country". And yet, as far as I know, the existence of the Hatherleigh study was not reported in any Irish newspaper. At any rate, his comment confirmed my view that if a new pattern of community economic development does emerge in Europe in the near future, Ireland will be at its leading edge.

Many, many people helped me to write this book by answering questions, sending information and commenting on parts of the draft and I record their names with gratitude at the end of the book. However, the support of five organisations has to be recorded here. First has to be the Goldsmith Foundation which provided the seed money for the project which me to visit Germany, Norway, Denmark, the US and Australia to find out what was going on. Then must come the New Economics Foundation, which besides arranging the Goldsmith grant, provided encouragement, information and advice and read through the typescript at a late stage. As I have already mentioned, funds from the International Society for Ecology and Culture enabled the scope of the book to be greatly expanded. However, its contribution went beyond the financial as I found Helena Norberg-Hodge's perspectives, derived from her years in Ladakh, on the ways in which happy, stable, self-sufficient communities can be destroyed by outside economic forces very valuable. And finally, I must mention the E.F. Schumacher Society in the United States - for which read Robert Swann and Susan Witt - which provided accommodation, hospitality and access to its extensive library during my visit to America. Run on a shoestring, it is the single most important US information source for anyone researching community economics.

This book provides a snapshot of what communities were trying and people were thinking at around the time it went to press and, because both ideas and projects are constantly developing, it will date quite quickly in some respects. One way of coping with that would be to bring out a revised edition in two or three years' time but a better way of keeping readers in touch would be to publish a magazine as this would not only be more immediate but would also allow topics not covered in *Short Circuit* to be explored. Moreover, people besides the author would be able to make their views heard. Nothing has been settled yet, but if you would like to receive a free specimen copy, please write to me at the address below.

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Cloona, Westport,  
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June, 1996.



## INTRODUCTION

On a bright day in June, a small passenger ferry, the Dún Aengus, lies among an assortment of small fishing boats beside Cleggan pier in the west of Ireland. Shortly before its two o'clock sailing to Inishbofin, an island with a permanent population of about 180 people five miles off the coast, one of the crew walks down the pier carrying a tray marked 'Pat the Baker' containing French sticks and plain white buns. He places it on a hatch cover on the open deck. Five minutes later, a forty-foot container lorry with a grocery wholesaler's logo on its side reverses down the pier. Using the tail-lift, the driver places a pallet-load of provisions on the flagstones beside the ferry. "Haven't you got a derrick so that you can swing it on board?" he asks the crewman. "We have not" the latter replies, taking a knife out of his pocket to cut through the heavy plastic cling-film with which the pallet-load is wrapped. The ferry's skipper, Paddy O'Halloran, who has sailed the island's mailboat for over thirty years, comes from the wheelhouse, I join him, and the goods are transferred from pallet to deck along a three-man chain.

A fair selection of what the island will need for the next week is there: sugar, biscuits, jars of jam, flour, margarine, toiletries and disposable nappies are all passed down the line until a large part of the open deck is three-deep in cartons. I am amazed at the number of packs of non-returnable bottles of Coca-Cola handed to me and wonder if the containers cost more to make than their contents. Later, on the island, I see a half-hearted attempt being made to dispose of their predecessors by burning them with other packaging material on the beach near the jetty. When the tide comes in, the unburnt rubbish floats off into the harbour. Some of it will be washed up back on the mainland because of the direction of the prevailing wind but most will be strewn along the tideline of the harbour itself. On the jetty itself I find a stack of baker's trays that somehow never made it back to Pat the Baker's factory in Granard, Co. Longford, over 100 miles away.

After a smooth, forty-minute crossing over a sparkling sea, the supplies are loaded into a tractor-trailer to be hauled to Day's shop, less than fifty yards from where the boat docked. There, the full extent of Bofin's dependence on the outside world is revealed. The milk was packed into waxed cartons sixty miles away in Oranmore on the far side of Galway. The eggs come from Co. Monaghan. The frozen fish from Co. Donegal. The cheese, butter and bacon rashers from the Golden Vale in Co. Cork. Yet this was an island that used to supply large quantities of eggs and butter to the mainland within the lifetime of many of its inhabitants and whose fishing industry once employed over two hundred of its men. What has gone wrong? Why does an island that spun, wove, and knitted almost all its own clothing a century ago and even grew flax for its fishermen's lines now produce so little for itself? The question needs to be answered because, of

Bofin's seventy-five remaining households, only five or six are not almost totally dependent for their income on state pensions or the dole.

It's not hard to find factors that contributed to the island's loss of its self-reliance. For example, Margaret Day, who ran Day's Hotel beside the shop until recently and was also the island's nurse for many years, says that the provision of a public electricity supply on the island in the early 1980s enabled people to stop keeping milking cows. "Until then, because the ferry could be tied up for days during bad weather, people had to keep a house cow if they wanted to be sure of having fresh milk. After the power came, they could keep bought milk in their freezers."

There are very few cattle on the island now because the EU's generous headage payments for sheep have made that animal more popular and even those which remain are not generally milked. "It's very difficult to get them used to hand milking once they've been allowed to suckle a calf" says Margaret Murray, who runs the island's other hotel, the Doonmore. "I'd like to use Bofin milk in the hotel but the health board insists it has to be pasteurised before it can be served to guests. The cost of the equipment means that is out of the question."

When a cheese maker came from the mainland in 1993 to run a course, there was scarcely enough island milk for her demonstration and none of the seven trainees, Mrs. Murray included, has been able to practise what they learned. No butter is being made now, either, although a churn is on display in the Doonmore's dining room. "This has meant that there is no buttermilk available for baking soda-bread. We bring it in from the mainland, but having to buy it has discouraged people from making their own bread" Mrs Day says.

Another reason why few cattle are kept is the difficulty of getting them to market. Slings have to be placed under their bellies so that they can be winched into the hold of the island's cargo boat, the Leenane Head, a fine wooden Zulu built in Scotland in 1906. "The winching and the sea journey set them back" Mrs Murray says. "They have to be rested for a day before they can travel any further. This makes it difficult and expensive for local people to take them to market themselves. What generally happens is that dealers come over from the mainland and buy the cattle cheaply, asking the farmers to keep the animals until shipment is arranged - which can be as long as two or three months. A farmer can't manage his affairs on this basis - he can't sell when he wants to sell. Sheep are easier to get to the mainland."

Almost all the island's meat is brought in. Several years ago, Mrs. Murray, who was on the Inishbofin Development Association's committee at the time, investigated the possibility of setting up a slaughterhouse so that the community 'did not have to go to a mainland butcher just like everybody else.' What she had in mind was something small and simple to handle sheep, but the county council had a standard specification and insisted that it be followed. "Their building was big enough to handle cattle as well and had walls tiled to the ceiling. It was just too expensive and so nothing was done." In fact,



some sheep are still slaughtered on the island, and their meat is sold, but it is done secretly to avoid prosecution. Thus official inflexibility led to the worst outcome of all: unregulated killing in totally unsuitable conditions.

Although the island once had curing sheds to enable its fish catches to be sent all over Europe and to Africa, very little fishing is carried on now and two disused trawlers are tied up at the jetty, unlikely to sail again. The only seaworthy fishing boat of any size left is the Northern Ranger but this is used mainly for taking parties of visitors to the neighbouring islands of Inishturk and Inishark. The main income of its owner, Gustin Coyne, comes from maintaining the island's electricity generating station and from doing electrical work in peoples' homes.

"A few years ago you could make a good income for the summer by setting three dozen lobster pots" he says. "Now you can't make a living if you set three hundred." The days before World War II, when a Frenchman called Samzun brought in French boats each year to supplement the local effort and shipped the live lobsters to England are a fading memory.

Most of the fish in the surrounding waters - the mackerel that were caught between March and July, the herring shoals which came at harvest-time, the cod and ling - have gone, destroyed by overfishing or taken by bigger boats further offshore. The decline began in the 1920s. Previously, fish buyers had come to the island from as far away as Germany and Shetland and the waters around Bofin were regarded as one of the world's foremost fishing grounds. In the 1840s, as many as ten thousand fishermen congregated on the island when the shoals moved that way.

Gustin says the concessions the Irish government made during the negotiations for Ireland's membership of the EEC in the early 1970s delivered the coup de grâce to the fishing because they involved exchanging increased access to Irish waters by other nations' boats for higher farm product prices under the Common Agricultural Policy. "At the time, the government didn't even know how many fishing boats were in this country or how big they were" he says. "That shows how unimportant fishing was to them. I'll give you an example of what that treaty did. Until a few years ago, crayfish were an important and valuable catch around here but the Spanish found the trench along which they migrate north and began fishing it. So the crayfish began to use another trench, until the Spanish found that too. Very few reach here any more and there's nothing we can do about it."

It would be nice to stop being negative and list the activities the islanders have developed to replace fishing and farming. Unfortunately, apart from a little tourism - mostly day-trippers during the three summer months - there's nothing to report. Instead, the litany of loss goes on. For example, although the island is ideal for raising free-range poultry because it has no foxes - a serious problem for smallholders on the mainland - only a few people keep hens and geese and Mrs Murray says it is difficult to get island eggs to serve in her hotel, although she tries. In any case, keeping hens would not reduce the island's

dependence on the outside world to any great extent if, instead of importing the eggs, Bofin imported the feed. In the old days, the islanders fed their flocks on oats and potatoes they had grown themselves and which were an important part of their families' diets, but only small patches of both are grown today.

The crafts the island had at the turn of the century disappeared as boatbuilders, blacksmiths, shoemakers, tailors, weavers and seamstresses were gathered to their ancestors. No equivalent skills came in to replace them and the island's children, whose links with their birthplace are weakened when they are sent as boarders to secondary schools on the mainland, look for their opportunities elsewhere. As a result, the number of households dropped from 186 in 1893 to 74 a century later and population declined even faster - by over 80% - so that a majority of today's households consist of one person or an elderly couple: there are only 21 children at the island's primary school. Indeed, because the age structure of the population is so skewed, unless new people move to the island or emigrants return, the number of permanent residents can be expected to fall below a hundred by the time of the next census in 2001. This might bring numbers close to the level at which the mainland authorities decide the island is too expensive to service and that its people should be encouraged to leave. On the neighbouring island of Shark, the last six families comprising 23 people were removed to the mainland in October 1960.

When I was there in 1993, some islanders told me that they thought that Galway County Council had decided to let Bofin run down because it was several years since it had authorized the construction of any council houses: applicants were being offered houses on the mainland instead. Others disagreed and said that, as the council had spent £2.5m. on building an ugly steel and concrete pier the previous year, there was no evidence it planned a gradual abandonment. (The poet Richard Murphy, who brought the first day-trippers to the island in his sailing hooker, the Ave Maria, in the early 1960s, says the 'structure disfigures the most beautiful natural harbour in Ireland as if a forceps were stuck in a womb.') Both groups were dissatisfied with the level of services the council provided, however, and early in 1995, after winter storms had undermined stretches of coastal road so seriously that, in the words of the priest, Fr. Paddy Sheridan, "You'd be afraid to walk up the road after your dinner for fear the weight would take you into the sea"<sup>1</sup> the island's annual general meeting voted to rejoin County Mayo to which Bofin belonged until 1872. The vote had no legal force but the road repairs were approved the following week and the construction of a council house shortly afterwards .

My suspicion is that the council has no policy for Bofin at all and that it built the pier because it was not spending its own money - thirty per cent of the funding came from central government in Dublin and the rest from the EU under its infrastructural development programme. What is certain is that the pier was imposed on Bofin from outside. True, the islanders had wanted something done, because the ferry could not dock at the old stone jetty at all states of the tide. However, their idea was to blast away some rocks and extend the jetty to an islet in the harbour called Glasoilean, a solution that would have cost far less than the council's project and which would have also stopped the

sheltered moorings at the far end of the harbour silting up. But since no-one ever said "We've £2.5m. here to spend in any way we like on capital works in Bofin, how can we make best use of it?" there was little incentive for the council to keep expenditure down. Had the islanders had control over the money, you can be sure that they could have built the jetty extension, a slaughterhouse to official standards, a dairy and several other projects as well.

Although the pier funds - an amazing £14,000 per islander - should certainly have been spent to greater effect, no-one should blame the council that they were not. The point of the EU's infrastructural spending is not to catalyse the development of those peripheral areas of Europe in which its ports and roads are built. Quite the reverse: the money is spent to improve access to markets on the periphery for goods manufactured by companies in the community's core. Obviously, a road runs both ways and a pier can be used to ship goods in and out. However, the more cheaply and easily that goods can reach Bofin or any isolated community from the outside world, the less necessity there is for the people living there to do things for themselves and the more competition that any goods they do make for the local market experience from goods made in more convenient locations. The ugly pier represents the EU's bridgehead, an extension of its distribution network, not a glorious entrance to the Single Market for the people of Bofin.

Despite the bridgehead, a few islanders are trying to compete against outside producers. A widow who prefers not to be named supplements her pension by baking soda bread and cakes in her tiny kitchen and selling them to neighbours who call to her door. Her greatest fear is that some day the health inspector who visits the island to check the summer-only restaurants and the two hotels he will close her down because she does not meet the recent regulations which require anyone producing food for sale to use a special kitchen, quite separate from their domestic one. "I'll ask him what he thinks I should do and if he could live on £50 a week, which is what I get" she says with exasperation.

Regina King and her friend Mary Lavelle used to grow vegetables to sell from a stall on Saturday mornings in July and August. "We've carrots, lettuce, spinach and mangetout peas" she told me in 1993. "We never have that amount of stuff and Murrys will take whatever we have left over for the hotel. Everything is completely organic." Her main problems were rabbit damage - the island is over-run with them and everything has to be carefully fenced - and the salt and the sand in carried by the frequent strong winds, which batter and blacken delicate leaves. The two women applied for a grant to help them purchase a polytunnel in the hope that it would solve both problems and give a longer growing season. The grant was approved but Regina had a baby and they did not take it up. Two years later, they had changed their minds about a tunnel. "We can't believe the plastic sheets won't be blown away" Regina says. "What we really need is a proper glass greenhouse but these are expensive and we can't get a grant for one."

Some years ago, a co-op was set up to bring food into the island at better prices than the shops and also to export the troublesome rabbits, which were caught and sent to England during World War II. Unfortunately, the organisers became over-ambitious and proposed

buying a refrigerated van to handle sales on the mainland. The capital and recurrent expenses that this would have involved killed the whole project and the co-op itself eventually withered away, its fate sealed when the island's shopkeepers told their suppliers that they would cease to deal with them if they supplied the co-op too.

Dr. Steven Royle of Queen's University, Belfast, a geographer who has studied the Irish offshore islands, thinks that life on them was always hard, which is why early systems of state support such as the Congested Districts Board became so heavily involved.

"Although in the past the islands' resources were supporting their populations, this support was at very low levels indeed; levels that would be completely unacceptable in Western Europe today. Life was hard and for many, short. Islanders had few possessions and lived very simple lives, basically as subsistence peasants. The local resources were often stretched to the extent that failure in any one of them could bring real hardship. It was certainly not a comfortable life materially, though the Blasket biographies and other works do present an attractive picture of the social and cultural life."<sup>2</sup>

Just how difficult life could be on Bofin when local resources failed was described by Thomas Brady, an Inspector of Irish Fisheries, in 1873, when about 1,250 people lived there and on its neighbouring island:

In the course of my official business during the early part of the present year, it came to my knowledge that distress, amounting to almost destitution, existed on the islands of Boffin and Shark....sheep have died from starvation, the people have little food remaining, no potatoes and very many no seed to put in the ground...the time for fishing is commencing but the islanders have no fishing gear to follow their advocations. I visited a great many houses in Boffin and Shark....In one house I found them eating their dinner which consisted of boiled seaweed with limpets in it...Only three men on Shark have any potatoes.<sup>3</sup>

In 1886, the government had to send a gunboat, HMS Banterer, with meal and potatoes to relieve distress. Housing conditions were bad, too. According to a paper written by Charles Browne in 1893 for the Royal Irish Academy, a typical house at the time consisted of a kitchen and one or two bedrooms and was built of dry stones and was plastered inside with mud or mortar. The roof was thatched and the floor was of clay. The windows were small and at the front of the house only, because the landlord would have raised the rent if more had been made. Most of the wood used in construction had been found as driftwood on the beach. Furniture consisted of a 'few stools, a rough table or two, with a dresser containing a scant assortment of earthenware, a spinning wheel and a quilting frame' while the bedroom would have two tent beds, some chairs and perhaps a small table. Pigs, hens and cattle were brought into the living room when they needed shelter because, again, the landlord would have charged extra had the tenant built outhouses for them.

No-one would wish to see Bofin return to conditions such as these, but surely there must be a middle way lying between the extremes of almost complete self-sufficiency on the one hand and near-total reliance on supplies and welfare payments from the outside

world on the other. The challenge facing the island is to achieve such a balance, a task that this book is all about.

The fact is that Bofin's circumstances are nothing special. Tens of thousands of landlocked communities throughout Europe share essentially the same situation. It is just that, as it is an island, we can see more clearly what its problems are. If it was joined to the Irish mainland, it would never occur to us to think it a pity that almost everything it needed was brought in. We would ignore it, just as we do the communities elsewhere which are just as grotesquely over-dependent on social welfare payments and which are slowly dying too because the economic activities that were once the basis of their existence have withered away. We don't expect people housed on urban estates with much the same level of unemployment as on Bofin to bake their own bread and repair their own shoes but isn't this is exactly where our thinking has gone wrong?

The decline in Bofin and tens of thousands of other communities is due to the collapse of ways of life which in many cases enabled their people to support themselves successfully for centuries, albeit at what we, today, would consider to have been an unsatisfactory level. The main cultural collapse has been that of peasant agriculture. In Ireland as a whole, 670,000 people gained their main source of livelihood from the land in 1926, the majority working for themselves or for members of their families. By 1991, the total had dropped to 154,000, only 14% of the national workforce, and was still falling at the rate of twelve families a day. As a result, 224 villages in county Galway were abandoned completely during the 65-year period. 10,000 people emigrated from counties Galway, Mayo and Roscommon in 1986 alone.

Similarly rapid changes have taken place throughout Europe, particularly after World War II. In the conclusion to the second volume of his book *The Identity of France*, the great historian Fernand Braudel writes that the ancient, peasant France - 'a France of bourgs, villages, hamlets and scattered houses' - survived more or less unchanged until 1945 when 'it fell victim to the 'Thirty Glorious Years', that period of unprecedented expansion that lasted until the 1970s.' The final blow which killed it, he suggests, was the introduction of the tractor,

a machine which could pull anything: the most advanced plough, the huge combine-harvester (a mobile factory) or carts piled high with bales or (these days) compressed blocks of hay and straw. If it has been possible to amalgamate properties, and if the size of farm that a family can now handle has increased, it is very largely thanks to the tractor. How else could the huge fields we now see in so many farming areas even be ploughed?<sup>4</sup>

He asks himself why peasant agriculture was able to survive until so recently and suggests this answer:

Is it perhaps for the simple reason that peasant life offered, to what was certainly an over-abundant population, a balanced way of life? Near Céret, where I live, the Aspre valley has now reverted to nature: today, only brambles, shrubs and broom flourish on the poor and untended soil. Here, 'the equilibrium based on almost complete self-sufficiency, combined with a little trading, which had more in common with barter than with imports and exports, was lost for good in 1950' Adrienne Cazeilles writes to me (20 January, 1985). The population gave up, leaving everything just as it stood, as if evacuating an untenable position in wartime. But before that, the position had been perfectly defensible. Life in Aspre was not wretched: people were poor, certainly, and it was a hard life, but that is not the same thing. As one of my friends, born in 1899 in a peasant family used to put it humourously but accurately: 'The only thing we were short of was money.'

The people of Aspre did not leave because their way of life was inferior to that in the outside world - they left because it had been undermined by the outside world, and in particular by industrialization. They were displaced, made redundant, by systems of agriculture which used industrial inputs like the tractor to enable food to be produced at progressively lower prices so that, eventually, they were left with too little income from the proportion of their output they did sell to buy even the limited range of goods and services they needed from outside. Industry also extinguished the settlement on Shark - one of the reasons the people left was that larger mechanized vessels began catching the fish stocks previously taken by their sail- and oar-powered boats. In both cases - and in thousands of other ones too - the world lost systems of production that had enabled families to live sustainably for generations from the resources of their areas with very little input from elsewhere. Those affected had no option but to give up their largely independent ways of life and become almost totally reliant on others and on the industrial system for everything they needed. They were never offered a choice. External circumstances compelled them to give up making, catching and growing almost everything they needed and to switch to purchasing their requirements using wages earned from an employer or money given to them as a dole.

So, just as nomadic herders were displaced by settled farmers, peasant farmers and fishermen were displaced by the industrial system. The main difference about the more recent substitution was the lightning pace at which it came about. The German economist Alexander Rüstow, who was born in 1885 when his newly-unified country was industrialising rapidly, regarded the destruction of the largely self-sufficient peasant way of life and its replacement by the factory system as the advance of an extreme form of tyranny. This was because the factory workers, unlike their peasant forbears, had neither land nor skills to employ on their own account in order to secure their families' needs and therefore had no alternative but to work for whatever wages and under whatever conditions the factory owners chose to offer. The livelihood of the new type of worker was completely outside his or her control. Today, we are all dependent. How many of us would survive should the industrial system fail?

Rüstow regarded peasant culture as superior to any other form, a view that seems ridiculous to those of us who accept the dictionary definition of peasant as 'uncouth or uncultured' and who would consider being called one a term of abuse. But Rüstow is not alone. In his book *The Villagers*, Richard Critchfield, an American journalist who until

his death in 1994 was clever enough to get commissions from his editors to enable him to report on life in villages around the world for the previous quarter-century, also saw peasant culture as humankind's greatest achievement and was concerned that industrial culture may not evolve to provide a satisfactory replacement. This was because the codes of conduct and attitudes that have enabled peasant cultures to survive throughout the centuries are the direct opposite of those fostered by the industrial system.

What are these peasant values? Critchfield quoted the University of Chicago anthropologist, Robert Redfield: 'an intense attachment to native soil; a reverent disposition toward habitat and ancestral ways; a restraint on individual self-seeking in favor of family and community; a certain suspicion, mixed with appreciation, of town life; a sober and earthy ethic'. The industrial system, on the other hand, has no respect for the environment or tradition and regards land as simply a factor of production. Its heroes are individual entrepreneurs and its predominant belief is that except in extreme cases the market should limit the search for profit, not the community. Industrialism's supporters also accept that family should not stand in the way of an individual's career.

According to Critchfield, peasant culture is the source of the world's major religions and concepts of morality and, as urban industrial society is failing to ensure that moral codes are successfully transmitted from generation to generation, it is eroding the ethical basis on which it is built. He quotes Walter Lippmann:

The deep and abiding traditions of religion belong to the countryside. For it is there that man earns his daily bread by submitting to superhuman forces whose behavior he can only partially control. There is not much he can do when he has plowed the ground and planted his seed except to wait hopefully for sun and rain from the sky. He is obviously part of a scheme that is greater than himself, subject to elements that transcend his powers and surpass his understanding. The city is an acid which dissolves this piety. Yet without piety, without a patriotism of family and place, without an almost plant-like implication in unchangeable surroundings, there can be no disposition to believe in an external order of things. The omnipotence of God means something to men who submit daily to the cycles of weather and the mysterious power of nature.<sup>5</sup>

Critchfield feared anarchy and civil disorder would break out if the cities' acid ate away too much of the moral basis of life and that urban industrial culture might be unable to repair the damage due to the death of morality's rural roots. "All our culture - our institutions of family and property, religion, the work ethic, the agricultural moral code and mutual help - originated in the villages" Critchfield wrote. "Farming is hard....but agriculture creates societies that work... No substitute for the rural basis of our urban culture has yet been invented..... As President Clinton has reminded us, 'Our problems go way beyond the reach of government. They're rooted in the loss of values, in the disappearance of work and the breakdown of our families and communities'".

He therefore urged us to seek 'a substitute for the old rural basis of our soon-to-be global urban culture'. This book, however, is not about what such a search might find. Instead it

discusses a possibility Critchfield probably thought too remote to mention, namely, that communities might find ways to resist being destroyed by the industrial system and, out of their struggle for survival, a modern version of a peasant culture might be born.

To those readers who think Critchfield and Rüstow wore rose-tinted spectacles and immediately associate a traditional peasant community with ignorance, extreme conservatism, bigotry and a chokingly-tight level of social control I would say that the new version does not have to be like its predecessor. In fact it would be almost impossible for it to acquire those characteristics because attitudes have shifted too far and because of the constant, unstoppable flow of information and ideas into every community, particularly through the Internet. What community in the industrialized world nowadays gives sole moral authority to its priest? Nevertheless, a great debate will have to break out in every emerging new-peasant community on the balance it should strike between the interests and rights of individuals and those of the group as a whole. Different communities will find different solutions but of one thing we can be sure: while no place will opt for the over-restrictive systems of yesterday, very few will find it possible to survive if they adopt the most extreme libertarian positions of today.

1 Quoted by Lorna Siggins in *The Irish Times*, 7/4/95 Back to text

2 Personal communication, 22 August 1995 Back to text

3 Quoted in *Inishbofin Through Time and Tide*, ed. Kieran Concannon, Inishbofin Development Association, 1993, p. 59. Back to text

4 *The Identity of France*, Vol II (Harper Collins: New York 1990), p. 675 Back to text

5 *The Villagers* (Anchor Books, Doubleday: New York 1994), p. 431 Back to text

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*2003 update on Inishbofin's economy by Joanne Elliott, a journalist and resident of the island*

In this, the third year of the new century, Inishbofin is more prosperous than it has ever been. The population appears to have stabilised at just under 200. Unless something drastic happens, it seems likely that it will remain at this level for some time. There are now two full time teachers at the National School for the island's 24 young children. There is also a crèche in the Community Centre offering a pre-school programme.

Much of the new prosperity, however, as been generated by government grants rather than by the ingenuity and work of the islanders. Despite the fact that an island is an ideal place for the production of organic foods, nothing has been done along these lines. The suspicion, mutual distrust and begrudgery endemic in all small communities militate against the cooperation necessary to bring genuine and lasting comfort. A 'green' island placed advantageously adjacent to the tourist rich Connemara mainland, would be able to supply that market with high quality organic food.



Also, there is a wealth of creativity among the islanders and many have skills such as boat building and stonework. These skills were learned before the easy access to machines and it might be possible to channel them into economic enterprises for the 21st century. So far, however, this has not been done.

Access, however, has improved enormously. Today there are two ferries running in conjunction: Paddy O'Halloran's Dún Aengus and Island Discovery owned by a mainlander. Between them, there is service seven days a week, twice a day on weekdays and once on Sundays most with connecting bus service to Clifden and Galway. On Tuesdays and Fridays, a boat leaves Inishbofin at 8:15 in the morning and connects with a bus to Galway. It is now possible for me to leave my house at 10 minutes past 8 and be in Eyre Square at 10:30. On the return trip, the bus leaves Galway at 5:30 pm, connects with an evening ferry at 7:30 and arrives back in Inishbofin at 8:15 pm. There are other sailings and the connecting bus services are provided by Michael Nee's Connemara Coaches. Both the boat and the bus service is subsidised by the government. Not only does this improvement benefit shoppers and people with urgent appointments in town, but it enables the secondary school children to be weekly boarders, returning home every Friday evening and setting off again on Sunday afternoons. Special buses take them straight to the school gates. The days of saying a tearful goodbye to one's child at the end of August not to be seen again until Hallowe'en are gone.

Several people have taken full advantage of this. They are able to commute, living on the island but working outside. One works in the Post Office in Clifden. The island vet works part time in several practices in neighbouring mainland towns. Others work in Galway and return home every weekend.

The extra frequency of ferry services means that communications have become faster, goods and services delivered sooner, daily newspapers in the shop (in the summer) and fewer days when bad weather in the morning meant that there would be no boat until the next morning.

Paddy O'Halloran is retired. His grandson, Paul runs the Dún Aengus which has the contract for the mail, the ESB, the Western Health Board and most of the freight. Island Discovery, although owned from outside the island, is skippered by local men, Pat and Dermot Concannon. It provides the boat-bus connecting services.

E-commerce has also come to the island in the last few years. My neighbour makes her living working for a computerised mail order business. A government agency, FAS, ran a computing skills course two years ago and 28 people took it. About one quarter of households now have a computer. A large percentage of hotel, B&B, cottage and hostel bookings come through e-mail. There is a computer in the National School and all the children are familiar with its use. In the past few years, the National School children had a stand at the Christmas Fair selling computer generated Christmas cards and calendars.

Along with computers, every household has television, most have a VCR, a washing machine and a deep freeze. Many have dryers and dishwashers as well. There is now a small island-based company selling and delivering heating oil. The convenience of having

oil delivered straight into the tank seems almost miraculous. I remember so clearly the days when every August, we borrowed barrels, hired a tractor to take them to the quay, waited for them to come back full, found another tractor to take them to the house and borrowed an electric pump from the priest to get it into the tank. It was a week's work to fill the tank.

The resident priest is gone. Mass is provided weekly by a priest shared with several other parishes. The parochial house is empty most of the time tended by Jerry Moran, the sacristan. A Christmas carol service, organised by volunteers, is now substituted for the traditional Midnight Mass.

Day's Hotel, a 'Bofin institution, is no more. The original building, once the landlord's house, has been demolished. A new hotel will be built on the site which is now owned by Dr. Brendan Day, Margaret Day's son. Margaret is now retired – she began providing food and accommodation on the island in the 1940s. The new hotel and conference centre will have a leisure centre complete with gym. No longer will visitors need to borrow a punt and row across the harbour. They will soon be able to reduce their excess flab with a rowing machine.

The Doonmore Hotel in Westquarter has put on a twelve bedroom extension and its own leisure centre consisting of a function room and gym. Island weddings have become fashionable and the Doonmore specialises in these. They also specialise in off shore diving groups, accommodating these with special equipment.

The excellent Lobster Pot Restaurant is, alas, no more. It closed a few years ago, a victim of EU restaurant regulations. Two new restaurants have opened, though, The Galley, in the East Village and The Dolphin across from the hostel in Clossy. Day's Pub has a bistro as well. These are open mainly in summer and occasionally on holiday weekends.

There are only a few B&Bs left but several people have renovated their houses to provide self catering holiday accommodation as this is less work and more profitable. Prices are the same as on the mainland. Tourism continues to be the main industry although the end might not be far off. With an excessive number of cars and piles of building materials everywhere the peaceful bucolic setting so admired in the past is changing. There are now fewer bird watchers and yachtsmen and more drinkers and cavorters. For many islanders, Bank Holiday weekends are times to be dreaded rather than enjoyed. We are in danger of killing the goose that has laid the golden eggs.

Standards of comfort have risen here as they have everywhere in Ireland. Visitors now demand television, central heating and ensuite bedrooms. Their children are looking for amusement rather than for the freedom of the outdoors. The restaurants serve nouvelle cuisine on large white plates with strawberry sauce and the fish and seafood is purchased on the mainland.

The New Pier, built with high hopes and at great expense is rather a damp squib. Disturbance of the seabed during construction has caused large areas of the harbour to

*Short Circuit* by Richard Douthwaite: Introduction

dry out during low tide and the ferries cannot get into the pier for parts of the day. Dredging is now a necessity especially in the inner harbour or 'Pool' used as a storm shelter. The county council and the Department of the Marine agreed to sanction the work after some prodding by the Department of the Gaeltacht and Islands. The project is scheduled to begin in the summer of 2003.

Even when the tide is sufficiently high, boats cannot lie easy at the new pier in bad weather due to its open construction and the old pier, long the island workhorse, is still required. It is estimated by the local boatmen that a great deal of money will be needed to create the necessary shelter on a pier which may never be free from problems. Designed in Dublin by engineers who probably never visited the island, it has been a disaster from the beginning.

The dredging project will, undoubtedly, provide work for local men as has the construction of the hotel extension and several new houses. Road repairs and the coastal erosion-protection work undertaken by the county council have created several new jobs. The council now maintains a constant work force which has taken several able bodied men off the dole. Attitudes towards the dole are changing with widened opportunity, quite a few people opting for the 'Back to Work' allowance instead.

The idea of an airstrip on Inishbofin Airstrip, debated for the past ten years, appears to be going ahead. Planning permission has been given and negotiations are in hand at present to buy the necessary land. Should this project materialise, Inishbofin would have easy access to the neighbouring islands of Inishturk and Clare Island as well as Clifden and Galway. If the Aran Islands can be taken as an example, one benefit would be the enrichment of the National School curriculum with specialist teachers who would be able to fly in and out. With the air service to augment the increased ferry and bus schedules, the anxiety of being cut off from the world for days at a time in bad weather will be merely a hangover of the past.

Another hangover of the past is still a problem in the present. The county council's planning department remains an obstacle to Inishbofin's continuing progress. Fearful of the spectre of 'holiday only' development, the planning office has imposed so many restrictions that many cases of genuine island development have become impossible. Large areas of glass are discouraged as non-traditional despite the fact that solar gain is a distinct advantage in a wet and windy environment. Windows in the gable are forbidden. A house must face the road even when the view over the harbour is its greatest asset. All building must be no more than a prescribed number of feet above the road even when the site is hilly. No building of more than one storey is permitted. And permission with all its restrictions will only be granted to the sons and daughters of island families who can demonstrate a genuine need. The violation of these regulations is rife and rumours of brown envelopes [bribes] are always flying about. The view in Galway appears to be that Inishbofin should remain as a museum to amuse tourists with glimpses of the impoverished past. How this idea can co-exist with their avowed promotion of the island as a self-reliant and viable community is a mystery.

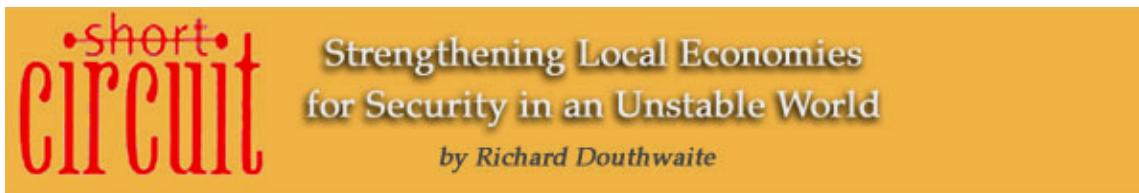
Day's Shop has closed. The new grocery at the head of the New Pier is owned by Bernie Cloonan and is situated in a large new pre-fab. Everything continues to be brought in from outside. Except for the addition of an ice cream machine and the newspaper stand, the products appear to be the same although greater care is taken in transit to ensure that food arrives in good condition. The Post Office is now incorporated into the shop. Frances Concannon, postmistress for the past 40 years, retired when the post office was relocated.

For a few years, Mary Lavelle sold organic vegetables from the Community Centre on Saturday mornings in the summer. Home-baked breads and cakes and a few crafts were sold as well although some of these petered out after a while. Mary continued to sell her vegetables until last summer when she gave up as well. The work was extremely labour intensive and when Mary took a job in Clifden and began to commute, the venture was impossible.

Few people grow their own vegetables now but gardening has become more popular due to the influence of Irene O'Connor who was born on the island but emigrated to America in the '60s. Irene returned a few years ago and began to cultivate the land around her cottage in Cloonamore. She has managed to turn a rough hillside into an amazingly lush and beautiful garden which was the subject of a television programme two years ago. She grows vegetables too but most people have turned their potato ridges into lawns and beds of shrubs.

Almost no one keeps a cow and the pony trekking centre which flourished for a few years was not popular with most of the islanders. The donkeys too, colourful and harmless, have mostly gone, sold to the mainland or sent to a shelter. I have even heard mutterings against geese. If Inishbofin were to turn into Eyre Square in the morning, a lot of locals would be well pleased.

Still, for all this, there is no crime or vandalism and the island remains a beautiful place to live. I like being in a place where I know everyone and everyone knows me. There are still opportunities here and if it were easier to buy or build a house, the island might be able to benefit from an influx of new people with new ideas.



## Chapter One

### OUT OF CONTROL

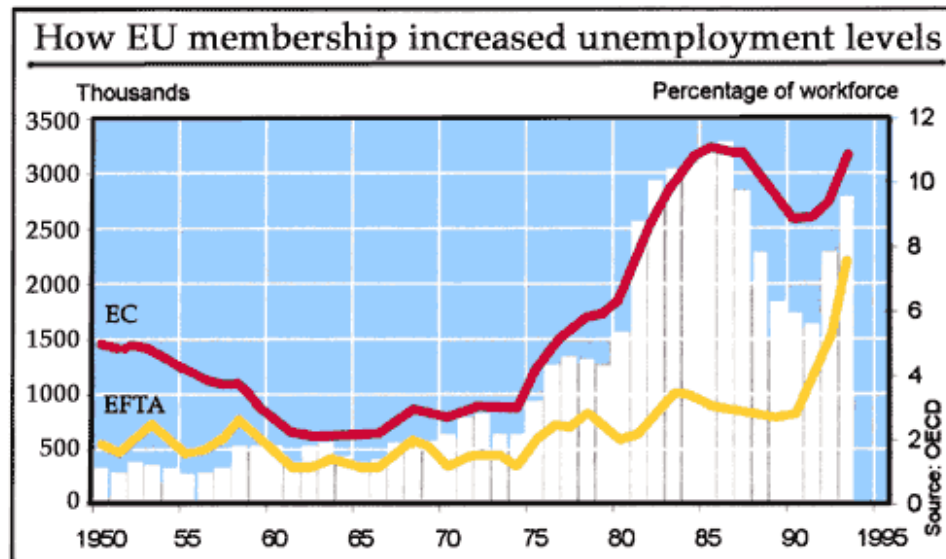
*The world economy has changed its nature. Since the early 1970s it has become highly unstable and has favoured the rich over the poor. Unfortunately, even if politicians accepted this, there would be very little they could do.*

For a quarter of a century after World War II, most young men in Britain, almost regardless of their level of ability and education, could confidently assume that they could find themselves some sort of job within a few hours whenever they needed one. Admittedly, the job might be utterly boring and without prospects, but nevertheless it would provide them enough income on which to live remarkably well. It was a marvellous time to start out in life.

But a sea-change took place at the beginning of the 1970s and twenty years later roughly a third<sup>1</sup> of the men aged between 18 and 24 were either unemployed or 'economically inactive'- a term applied to those people without work who have given up what governments see as their economic function of keeping wage rates down by continual job-hunting, and who have thus made themselves ineligible for the dole. At any one time an estimated 100,000 young men<sup>2</sup> were homeless as a result of inadequate incomes, some sleeping on city streets, while theft, the crime for which this age-group is most frequently responsible, almost tripled between 1971 and 1992<sup>3</sup>. "For many youngsters, crime has become a matter of survival in this new society which appears to cater only for the winners" Stewart Lansley of the Henley Centre for Forecasting wrote<sup>4</sup>. "Today, denial of the new trappings of consumerism means a denial of full citizenship.... The result has been a growing lack of community cohesion and a declining sense of social commitment."

Despair engendered by poverty and involuntary idleness drove increasing numbers of young men to suicide: in 1992, 500 males aged between 18 and 24 killed themselves in Britain, 80% more than ten years earlier. Indeed, suicide became the second most common cause of death for all young people<sup>5</sup>. Other age-groups were affected by the rise in unemployment, of course, but it struck most harshly at the young who, right across the EC, were twice as likely to be jobless as anyone else of an age to work. In France, for example, in 1995, 45% of those leaving school with their baccalaureate and 80% of those without any exam successes were unemployed nine months later. Robert Castel, a sociologist, was not alone when he warned of the danger of society breaking down<sup>6</sup>.

What had gone wrong? How did an economic system which had enabled Britain to keep overall unemployment between 1.2% and 2.1% of the working population from 1945 to 1970 alter to such an extent that later governments were entirely unable to hold the problem in check?



*Graph 1.1 The number of people unemployed in Britain, the white barred area, rarely exceeded 600,000 between the end of World War II and 1974. It then began to climb rapidly as a result of the country joining the EU and reached over 3 million. The gray area shows that European Free Trade Area countries continued to enjoy low unemployment until they either joined the EU themselves or prepared to join it. Their joblessness rates have since tripled.*

As the graph shows, unemployment rose rapidly after 1974, only falling back in periods in which the economy enjoyed brief booms but, even then, never returning to the level of its previous troughs. The difference between the trend in this latter part of the graph and that in the earlier one is so marked that by the early 1990s, even optimists were forced to admit that full employment would not return when world economic conditions improved and that the problem was 'structural' - that is, created by changes in the way the economy worked.

The first structural change took place on Sunday, August 15th, 1971. Facing a range of problems which appear like molehills today but seemed mountains at the time - a trade deficit of \$4bn., and unemployment and inflation rates both moving up towards 5% - President Nixon took the United States off the gold standard, thus removing the last fixed link between paper money and real goods. His action destroyed the gold-exchange standard currency system set up by the 1944 Bretton Woods agreement under which the dollar was convertible into gold and all other major currencies were convertible into dollars. Under the system, countries had been able to expand the amount of money they had in circulation as long as they could keep their exchange rates in step with the gold-based dollar. Without it, the value of their currencies was based on nothing but confidence and fluctuated in response to the whims of the market to an unprecedented

extent. The monetary world had no foundation, no fixed point - "a floating non-system" the German Chancellor Helmut Schmidt called it - and central banks were forced continually to adjust interest rates and the amount of money in circulation on the basis of how their national economy was perceived internationally rather than the volume of trade going on.

"It was a change of monumental proportions that not only redefined money but created the opportunity to dramatically speed up the rate at which transactions between companies and countries took place" Joel Kurtzman, a business columnist on *The New York Times*, writes in his 1993 book, *The Death of Money*.<sup>7</sup>

"It created enormous arbitrage possibilities and set the stage for the invention of a myriad of new financial products. It also initiated the process of decoupling the 'money' economy from the 'real' economy. As a result, two-plus decades later, the money economy where transactions take place purely for financial or speculative gain, and the real economy, where the world's raw materials, goods and services are produced and traded, are badly out of balance. That was Nixon's economic legacy."

Another important economic change took place immediately before unemployment began its climb. On January 1st, 1973, Britain, Denmark and Ireland joined the EEC, a move which required their governments gradually to harmonise their economies with those of the six existing members. This limited their economic freedom and, as graph two shows, these three countries' unemployment levels - and those of the EEC as a whole - became significantly worse than those of other countries which were also coping with death of the gold-exchange standard but which decided to stay in the European Free Trade Association (EFTA) rather than join the Common Market.

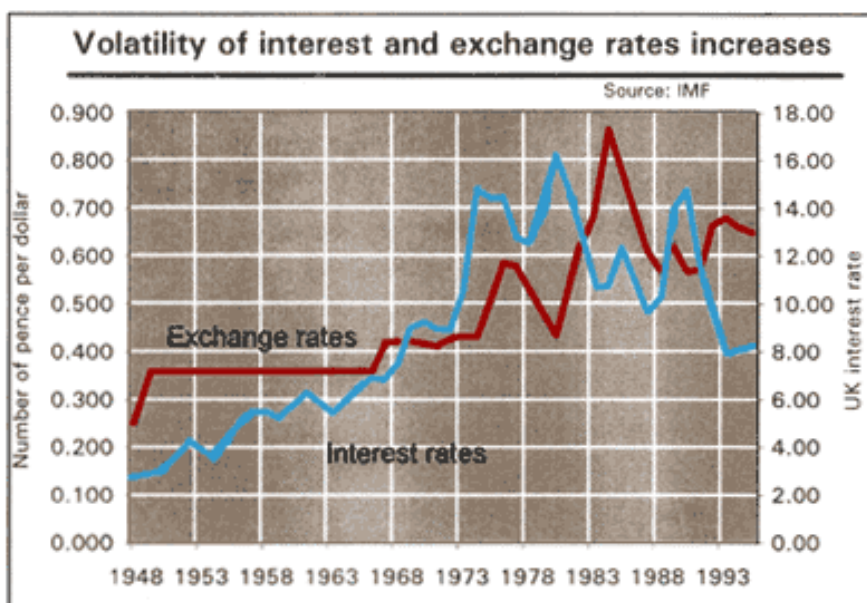
The Kennedy (1967) and Tokyo (1979) GATT treaties also restricted the ways in which the British and Irish economies could be managed. The treaties' signatories undertook to reduce the rates of duty that they imposed on imports from other participants. This effectively prevented them from using import duties to cure trade deficits and to create more jobs by protecting home producers from overseas competition. As a result, Britain was subjected to a flood of shoes, clothing and textiles from cheap labour countries and employment in UK firms manufacturing these products fell from 973,000 to 412,000 between 1973 and 1993<sup>8</sup>. Other industrial sectors were similarly affected and, by 1982, a country which had had a trade surplus in manufactured goods in every peace-time year for more than a century and which in 1972 had exported goods worth 55% more than those it imported went into what became a chronic trade deficit. By 1993, this deficit had grown to £13.4bn. If the goods it represented had been made domestically, the additional activity would have created at least a million extra jobs<sup>9</sup>.

A fourth structural change was the complete abolition of exchange controls in 1979, four months after the Conservatives came into office under Mrs. Thatcher. This concession enabled the banks and financial institutions which had contributed so generously to the Tories' election fighting fund to move their money to wherever in the world they could obtain the highest return: if, after allowing for any differences in risk, a project in New Guinea promised to be more profitable for the promoters than one in Newcastle, New

Guinea was where the institutions felt their money should be. The fact that the total benefits from a project located in Britain were likely to be considerably higher to the British people than one overseas was ignored. Sectional interests triumphed over the public good.

These four changes left Britain without most of the powerful economic management tools it had previously used to create the space within which governmental policies could be carried out. In particular, the Keynesian methods of economic management which had produced full employment and relative stability in Britain between 1945 and 1970 became unusable because, if a government now ran a budget deficit to stimulate domestic demand to increase employment, it could no longer use tariffs and quotas to control imports and prevent overseas competitors taking a lot of the extra work away. Indeed, if it was so much as hinted that the Chancellor of the Exchequer was planning to increase the public sector deficit, investors would fear that the increased demand for imports would depress the international value of sterling and move their funds to other currencies, precipitating the decline in the value of the currency they sought to escape. In short, the four structural changes heightened the degree of instability in the British economy while simultaneously leaving those responsible for managing it with far fewer methods for its control. Other governments got themselves into the same position, of course, with the result that the world economic system became so unstable that it was extremely liable to catastrophic collapse. As the graphs show, interest rates and exchange rates have been more unstable recently than at any other time in the past five hundred years, making it extraordinarily risky and difficult for anyone to try to build up any sort of small business along conventional lines.

Once the British government had signed away its right to use duties and quotas to control imports, it had only one way left to end unemployment.





*Graph 1.2 Since 1973 exchange rates and UK interest rates have fluctuated much more widely and violently than in the preceding quarter-century. This is shown here by the movement in the value of the US dollar in terms of sterling (scale on left), and UK long-term interest rates (right).*

This was to lower domestic costs sufficiently to make home-produced goods and services so competitive internationally that they displaced imports and attracted sufficient export orders to enable all available workers to be offered jobs. This approach sounds fine until one looks at what it entails. There are two main ways in which a country can cut its costs compared with those of its competitors. The easiest and most effective is by devaluing its currency. Unfortunately, however, this method is unavoidably inflationary because the increased costs of imports in terms of the national currency have to be passed on to consumers and even if a way could be found to avoid these price rises it would be undesirable to use it. This is because if import prices fail to rise, there is no price incentive for people to switch to home-produced products, thereby creating jobs in the firms making them. One of devaluation's most powerful modes of action is lost.

Since inflation is highly unpopular with the electorate, the banks and, most crucially, international investor-speculators, both Labour and Conservative governments have avoided devaluing except when compelled to do so as in the exchange rate crisis of September 1992 when devaluation proved its worth by generating an export boom. They were therefore left with the only other way of reducing domestic price levels relative to those overseas - by improving efficiency and productivity. All sorts of 'supply-side' measures were taken to boost efficiency including the elimination of restrictive practices such as union demarcation agreements in the workplace, the 'Big Bang' reforms in the City, and the rules against building societies lending for things other than house purchase. These changes were generally welcomed by people who escaped the human cost of bringing them about because no-one likes the idea of paying a high price for goods or services because one group or another, whether it be printers on newspapers, solicitors in conveyancing or a state monopoly in telecommunications, has a stranglehold on a particular activity and refuses to allow others to do it more cheaply. Calling a business 'competitive' became the highest form of praise.

The problem with promoting this type of efficiency, however, is that one man's cost is another man's wage packet and if unions, firms or institutions are forced to compete more aggressively with each other because the protective barriers they have erected around their activities over the years are broken down, jobs are lost and the wages and salaries paid to those remaining fall, cutting sales and hence employment in the shops and services which supply them. In other words, in their efforts to create employment, successive governments promoted policies which destroyed it. Only if an industry's turnover increased in real terms after its restructuring was there any possibility that additional jobs would be generated to replace those which the efficiency drive had eliminated. In most sectors, this increase in turnover either did not happen or was inadequate to offset the losses from continuing productivity drives. The country found itself struggling up an escalator moving down: in any year in which Britain's total turnover as measured by its gross national product did not grow by over 3%, the number of jobs lost because of 'rationalisation' and labour-saving technologies exceeded the number of new ones created and unemployment rose.

Few criticised the thinking behind the methods taken to achieve greater international competitiveness because the British public and its political leaders had collectively lost their way. I suspect that, if asked, most politicians regardless of their party affiliation would have said that they were working to defend and, if possible, advance the welfare of their fellow citizens. After some prompting almost all might have also said that the higher the real wages that those citizens received, the higher their economic welfare, and hence their total welfare, other things being equal\*. But no matter how leading the questioning, not one of them would have pointed out that there was a fundamental incompatibility between raising public welfare and the tactics they were pursuing. Nor would they have admitted that, by removing the protective barriers around the British economy, they had inadvertently created a system in which being competitive in both home and overseas markets boiled down to reducing their citizens' wage levels faster than their rivals. Almost no-one in politics saw that the commonly-accepted goal for the economic system, the welfare of the citizen, was being sacrificed to make the economy perform and that, quite quickly, many people's wages were likely to fall to Third World levels.

But the politicians should not be criticised too harshly: they were blinded by out-dated economic theories. The real blame for what went wrong must be taken by the economics profession which failed to point out that free trade could prove seriously damaging in the circumstances in which it was being introduced.

The conventional proof of the superiority of free trade assumes the economies of both trading partners to be in equilibrium before trading begins - in other words, to be producing at the highest level possible given their technology. This means all their factors of production - land, labour and capital - must be fully occupied. The proof also assumes that the partners reach another similar equilibrium once trading is in progress. If they can assume these two equilibria, most undergraduate-level economics students can show that in a two-country, two-commodity world with perfect competition, the trading equilibrium is better than the non-trading one because it allows both countries to have more of the two traded commodities than they would if they did not trade.

But it is very doubtful whether a proof based on these limited circumstances has any relevance to our present world. This is because most countries are not generally working at maximum production since they are using neither the latest technology nor all their factors of production since unemployment will exist and their manufacturing companies will usually have unused capital equipment. As a result, even the most sophisticated economist has to struggle to say anything useful about whether the post-trade situation is likely to be better or worse than the pre-trade one, particularly if he or she attempts to take into account any changes in the distribution of income brought about by the growth of trade. Certainly, since the most significant feature of the post-1973 period has been the steady growth of unemployment, equilibria did not exist in most countries which moved

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\* In *The Growth Illusion* (1992) I show that other things never remain equal whenever an economy grows because the growth process changes everything, including factors outside the economic sphere. However, most politicians and mainstream economists do not realise that growth can have harmful side effects: for them it is unquestionably A Good Thing.

towards freer trade. In these circumstances, economists should have admitted that it was impossible for them to say whether higher imports and exports and the removal of the further trade restrictions would prove beneficial. That almost every economist of note failed to do so is a black mark against a profession whose overwhelming support for free trade has been based on faith and intellectual idleness rather than evidence.

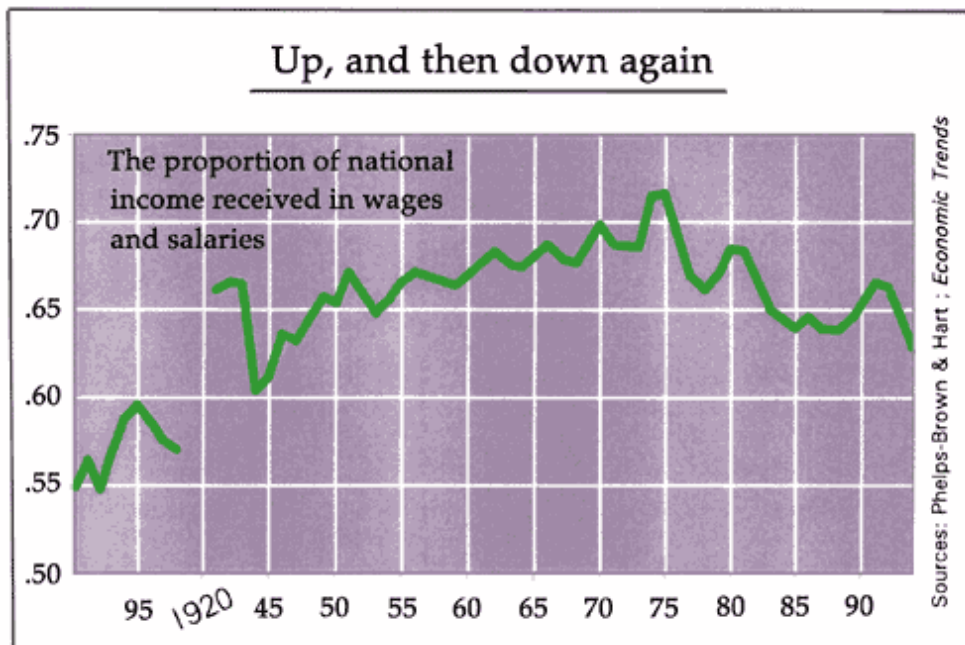
No-one would open a corner shop without a very much more thorough analysis of whether it might prove beneficial for the majority of participants than was ever obtained for the various phases of the EEC and GATT experiments. In an interview with the editor of an Irish business newspaper, *The Sunday Business Post*, in June 1993 shortly before he took up his post as the Secretary-General of GATT, Peter Sutherland claimed that the world economy would benefit by \$200 billion if the Uruguay round was completed. It was scarcely surprising that he used this figure as it was the only estimate of the benefits of the round available and had already been quoted to such an extent that the public could not be blamed for thinking it reliable. In fact, the figure comes from a short briefing document *Trade Liberalisation: What's at Stake?* produced by the OECD in Paris and, when, several months before Sutherland's interview, French journalists had asked the OECD's secretary-general, Jean-Claude Paye, about it, an embarrassed Paye had dismissed the estimate as 'pretty theoretical' and stressed that, if benefits on that scale were ever achieved, it would be over a ten-year period and at the expense of some developing countries<sup>10</sup>.

The authors of the paper, Ian Goldin and Dominique van der Mesbrugghe, were not surprised that their figure was quoted so widely - "After all, we were the only ones to try to quantify the gains" van der Mesbrugghe told me<sup>11</sup> - but were alarmed at the importance being placed on what was in reality little more than an educated guess. The \$200bn estimate acquired an aura of authority. "I call that \$200bn a biblical number now" van der Mesbrugghe said, agreeing that it had entered the mythology of our times. And, even though later workers have produced similar estimates using different methodologies, he doesn't think that makes his figure any more likely to be correct. "We all used the same trade data and made similar assumptions about which distortions would be corrected and to what extent" he said.

The one aspect about which van der Mesbrugghe was sure their paper was correct was the one which Sutherland, an Irishman speaking to an Irish audience, signally failed to mention, much less stress. It was that, in the developed world at least, rural communities would lose as a result of the dismantling of agricultural support structures, while urban dwellers would reap the gains. And so, just as five years earlier, the potential gains forecast by the equally unreliable Cecchini Report had provided the excuse for remote and rural areas to be sacrificed in order to create the EC's Single Market in 1992, so an estimate in which even its authors had no confidence was used, along with selective quotation, to justify a further far-reaching liberalisation of world trade.

The forces pushing for these liberalisations were, in fact, exactly the same groups which had urged Mrs. Thatcher to lift exchange controls - the financial institutions, transnational companies and retired people living on private means. Taken together, free trade and the

free movement of capital had a profoundly damaging effect on the share of national income going to the rest of the economy, the people who work for their living and depend on their pay. The figures show this quite clearly. In 1952, two eminent economic historians E.H. Phelps-Brown and P.E. Hart published a classic paper<sup>12</sup> which showed that between 1870 and 1950, wages stayed between 36.6% and 42.3% of national income, varying only slightly with the trade cycle and showing no clear time-trend.



*Graph 1.3 The proportion of national income going to wage and salary earners in Britain was on a generally rising trend between 1870 and 1975. Since then, rents, profits and interest payments have taken a much larger share of GDP, throwing the trend into reverse.*

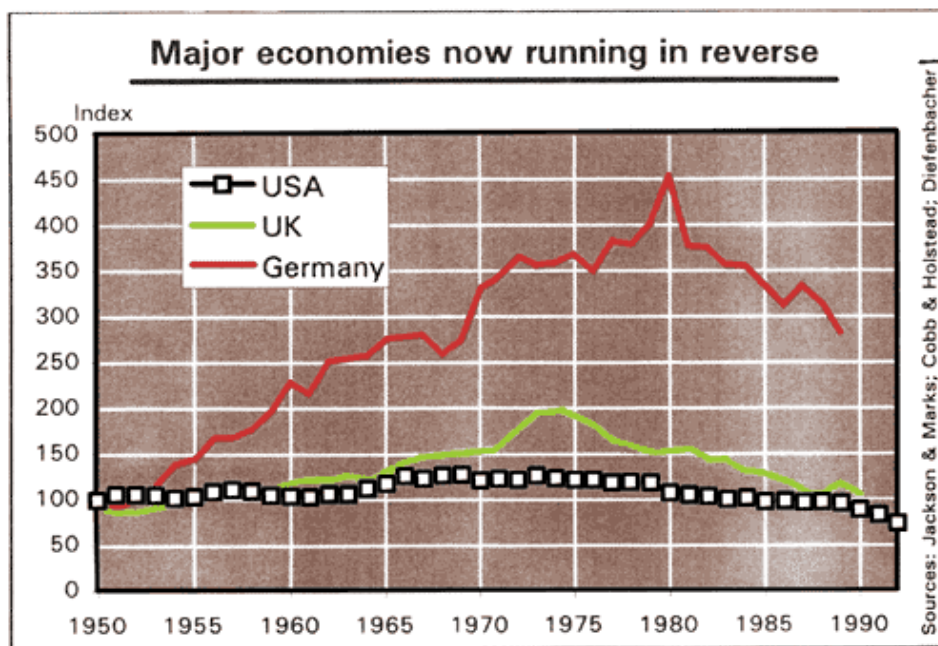
Their definition of wages excluded salaries. However, if one recalculates their results taking salaries and wages together, not only is the share of national income taken by labour very much more stable from year to year but it rises steadily from 54.8% in 1870 to 65.3% in 1950. In other words, over the eighty-year period during which the well-being of ordinary people improved substantially, the share of national income going to those working in the economy increased at the expense of those receiving rents, interest payments and dividends.

If we bring the Phelps-Brown and Hart time series up to date we can see that the slowly-rising trend continued for the next twenty years until, by 1974, 70.45% of the Gross Domestic Product went to pay wages and salaries. After that year, however, the trend went sharply into reverse. By 1987, only 63.8% of GDP was paid for work done, an unprecedented fall in so short a time and one which was largely brought about by the introduction of technologies to increase competitiveness which involved the replacement of human labour by two other factors of production, capital and fossil energy.

Interestingly, 1974 was also the year that the Index of Sustainable Economic Welfare (ISEW) for the United Kingdom began to decline. ISEWs were devised because using a

country's national income per head to provide an indication of the economic welfare of its citizens has several very serious drawbacks. One arises because the goods and services produced in a country in the course of a year - which is what its national income consists of - might be shared out very unequally. Another occurs because the country's citizens will not get to consume or otherwise benefit from a high proportion of their output because some of it will be exported (to be replaced by a greater or lesser value of imports), some ploughed back into the economy as new investment and some used on tasks such as cleaning up pollution or fighting crime to keep the system running in a tolerable way. Some of their production - such as the goods and services they produce for themselves at home - will not be included in the official statistics which only cover things which are bought and sold. And then some of the production the people do buy may make them no better off but simply keep things as they are. For example, if traffic noise increases so much that they have to install sound-proofing to sleep well at night, the products they purchase to deaden the noise count towards national income but scarcely represent an overall gain. And finally, some components of national income may have been produced by depleting the country's physical capital - crops grown using methods that cause soil erosion, perhaps - and a correction is needed to allow for this<sup>13</sup>.

Tim Jackson and Nic Marks analysed the British national income figures for 1950-1990 along these lines<sup>14</sup> to produce one of the lines in Graph 1.4. For each year, they took the figure for total consumer expenditure from the national income statistics and corrected it for changes in the equality of income distribution arguing that a £1000 was likely to be of much more benefit to someone on a low income than to someone who was very well off.



*Graph 1.4 Although national income per head doubled in the USA between 1950 and 1990, the Index of Sustainable Economic Welfare (ISEW) only increased by a small amount and then fell off: it is now at roughly two-thirds of the 1950 level. German and British ISEWs rose more strongly in that period but are now moving rapidly in reverse.*

Then they added their estimate of value of the housework and the other goods and services that people produced for themselves. Next they added the value of the services provided by the washing machines, televisions and any other consumer durables people owned. Finally, they included a proportion of the educational and health expenditures paid for by the state, ending up with an annual total which proved to be closely related to that year's per capita Gross National Product.

Then they made corrections for such things as the cost of commuting, traffic accidents, water, air and noise pollution, the loss of farmland, the depletion of non-renewable resources, and long-term environmental damage including that to the ozone layer. Up to 1974, the total deduction the pair had to make to each year's figures to cover these items grew roughly at the same rate as consumer expenditure with the result that the residual, their Index of Sustainable Economic Welfare, grew at much the same rate as GNP per head. For example, between 1950 and 1960, the GNP per head grew 23.3% and ISEW by 21.0%. In the next decade 1960-70, the figures were 26.3% and 27.5% respectively. After 1974, however, the required corrections grew faster than GNP per head with the result that ISEW began to fall and by 1990 it was only 3% higher than it had been in 1950, having dropped by over a half\*. Attempts to calculate ISEWs for other countries have produced similar results. In the US, Clifford Cox and Ted Halstead have produced<sup>15</sup> a 'Genuine Progress Indicator' which shows that economic welfare began to decline there in 1968 and had fallen by over 40% by 1992. The decline in Germany began in 1981 but has been much more rapid and the index calculated by Hans Diefenbacher<sup>16</sup> fell by 40% in just seven years.

I've gone into this degree of detail about ISEWs because they throw an important light on the proposals I make in the next chapter. What the UK, American and German indices clearly show is that the world economic system is now running backwards and although it is producing more goods and services each year, all the increase and some more on top is required to keep the system functioning and to compensate for the damage it does. In other words, as the system gets more centralised and supplies our needs in increasingly indirect ways, using more and more packaging, advertising, capital equipment and transportation, it is becoming much more inefficient. Indeed, it has not just run into diminishing returns, but negative ones.

Part of the reason the UK ISEW changed direction in 1974 is that this was the year the distribution of national income began to become less equal and of the reduced proportion of it going to wage and salary earners, a smaller fraction found its way to those at the

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\* If I had been doing the calculation the 1990 index would have come out much lower. This is because Jackson and Marks valued the goods and services people produced for themselves according to the wages they would have been paid if they had been employed to do them at the going wage rate rather than on the actual amount of housework, gardening, cooking and childcare done. As a cleaner's wages went up 2.8 times after correcting for inflation between 1950 and 1990, this means that unless domestic productivity increased by that amount because of the wider use of vacuum cleaners etc, Jackson and Marks were inflating the value of these chores and so distorting the ISEW upwards. They were worried about this aspect of their work themselves, remarking "it is by no means clear that this impact is fully justifiable."

bottom of the social scale. In the two decades after 1974, British wages fell sharply in comparison with those elsewhere, in part because of the government's efforts to boost competitiveness, in part because new technologies reduced demand. So, although UK pay rates were much the same as those in Italy in 1980, by 1990 they were 25% lower and, according to European Commission's 1993 *Annual Employment Report*, only 5% above those in Ireland and Spain. As a result, the poorest fifth of the population, the group with the weakest bargaining position in a jobs market which no longer had much use for unskilled or physical labour, saw its share of the fraction of national income going to households fall from 9.6% to 6% during the 1980s<sup>17</sup>. The richest 20% of the population, by contrast, received 43% of total household income in 1991 compared with 35% in 1979. Similar income shifts took place in the US and other countries, and when Loic Wacquant, a scholar at the Russell Sage Foundation in New York compared urban poverty in Europe and America, he found that the economic system had started behaving differently. "Roughly until the 1970s, the expansion of the economy translated into improvements at the bottom of the class structure" he told *The Economist*<sup>18</sup>. "Now, when the economy goes into a downward spiral, neighbourhoods of exclusion get worse. But when it goes into an upward progression, they don't join in."

Despite the grave social consequences of these massive shifts in the distribution of national income away from payments for work and away from the worst off, the British government felt able to boast of its supply-side achievements in a glossy brochure *Britain: The Preferred Location* published in 1992 by the Department of Trade and Industry's Invest in Britain Bureau to attract overseas investment. "Labour costs in the UK continue to be low - significantly below other European countries..." the pamphlet says. "The UK has the least onerous labour regulations in Europe, with few restrictions on working hours, overtime and holidays...there is no legal requirement to recognise a trade union."

But despite the fall in labour costs, British unemployment levels remained persistently higher than the EC average, which, while it fluctuated according to the trade cycle, was itself on a rising trend as each member state sought to increase its competitiveness in relation to the others by introducing the energy- and capital-intensive technologies which enabled less labour to produce a larger volume of goods. In the early 1990s, unemployment began to rise sharply among EFTA countries too, as they began to align their economies more closely with those of the EC in preparation for eventual membership. In 1993 Professor Sten Johansson, a former director of the Swedish Central Statistics Bureau, told a meeting in Copenhagen shortly before the second Danish referendum on the Maastricht treaty, that Sweden had started aligning its economy with that of the EC three years previously and the changes had proved very harmful for groups like the old, the young, women, public employees and those living in rural areas.

After the meeting Johansson told me that the Swedish social welfare system had run into trouble because economists had advised the government to remove the remaining controls on currency movements on the grounds that they were having little effect anyway. However, once this was done, large sums of money had left Sweden and the monetary system had become extremely unstable. Public sector spending had had to be

cut sharply to restore market confidence, undermining the cradle-to-grave social welfare system which had been the envy of most of the rest of the world for almost forty years. "We need to find another system of controlling monetary movements which does not involved locking everything rigidly together and thus causing even more problems" he said.

Hallvard Bakke, a Labour member of the Norwegian Parliament, told the same meeting that politicians in Norway and Sweden were pushing for EC membership although a majority of people did not want it. "The Nordic welfare model puts people at the centre. It ensures they can live a good life without moving their homes. EC policy is the exact opposite. It is that people should move to wherever the work is" he said. The Nordic countries had always been dependent on overseas trade, which made up the same proportion of their national income 100 years ago as it did today. "Despite this high level of trade, we have been able to build up our own welfare model. The market is good for many things but not for employment and the good life" he added.

He was right: when a country with generous social welfare provisions such as Norway or Sweden is forced to compete in an uncontrolled way against dozens of other countries which leave the poor, the sick and the old to fend for themselves, it will inevitably lose markets to them because its traders are carrying overheads its rivals do not. In the past it was argued that the industrialised countries would be able to protect their welfare systems, wage levels and working conditions by keeping several technological jumps ahead of their Third World competitors. Now, however, it is hard to find anyone who believes this because, on the one hand, the technologies used in South East Asia's export factories are little different from those used in the west, while, on the other, western countries are competing ever more fiercely for market shares among themselves, each of them cutting wages and welfare in an attempt to get an edge. The only western industrial enterprises which can hope to remain relatively unaffected by Third World competition are the manufacturers of sophisticated aircraft and armaments - and then only for as long as the huge public R&D subsidies to these activities continue.

In principle, then, John Major was quite correct when he repeated his opposition to the social chapter of the Maastricht Treaty at the EC summit in Copenhagen in June 1993 on the basis it would impose higher costs on European manufacturers and make them less competitive in world markets. He was also right to say that social welfare benefits throughout the Community would have to be cut if it was to trade successfully around the globe. "Long-term unemployment is higher in the European Community than in either Japan or the United States" he wrote later that year <sup>19</sup>. "There is now increasing agreement that these problems stem from the inflexibility of European labour markets, from the tangle of regulations, from wasteful systems of welfare, from the burdens of too high systems of taxation, which Europeans have imposed on themselves in the last 40 years.

"European labour costs rose by 4% a year during the 1980s while barely changing amongst our major competitors" he went on. "Europe spends proportionately nearly twice as much as the Japanese on public social security and health care, and over 60% more



than the Americans. The problem will be compounded as the proportion of old people in our population increases. Unless we take action to contain costs, Europe's taxpayers will be paying 30% more for social security and health in real terms by 2020. Unless we act to deregulate our economies there will be too few earners in Europe to pay those tax bills."

No-one was in a position to dispute his argument that the EU countries needed to cut their taxes and their labour, health care and social security costs because, largely as a result of the economists' failure to admit that the case for free trade collapsed in conditions of unemployment, no alternative strategies less reliant on competing internationally had been worked out. Even on the political fringes, very few people pointed out that free trade was not compulsory and that countries need not trade on externally-dictated terms because they could trade on their own, exchanging goods and services with the rest of the world only when, and to the extent, that they found it beneficial to do so.

In Europe, only France, which has had only five years in which the level of unemployment dropped since the mid-1960s, has seriously discussed alternatives to free trade, largely because of the work of Maurice Allais, who won the Nobel prize for economics in 1988. Allais believes<sup>20</sup> that free trade will lead to a surge in imports from low wage countries and cause many companies to shift their factories there. As a result, he says, Europe will experience mass unemployment, huge wage inequalities and a social explosion. His thinking gave France the intellectual confidence to oppose the limitations on agricultural subsidies sought by the United States as part of the Uruguay GATT round and for President Mitterrand to tell a TV interviewer at the EC's 1993 Copenhagen summit that the EC should adopt rules to enable it to protect its industries against imports from low-wage countries.

However, France is the exception and unless a trade war breaks out it is impossible to envisage a generation of European leaders which has devoted a large part of its working life and prestige to turning the EEC into the European Union making a 180-degree turn and calling for trade restrictions until unemployment is conquered. If there is no trade war, an entirely new generation of politicians will have to emerge before policies which give preference to people rather than mistaken concepts of economic efficiency are adopted. In this event, we are likely to have to wait at least ten years for any national or international restructuring to begin.

In the meantime, the outlook for many people is grim. In a state of increasing desperation, our present political leaders and their immediate successors will try ever harder to make their collapsing creation work, hoping rather than believing that the world economy will suddenly start to work perfectly and a more general prosperity will return once the few remaining trade barriers have been brought down, the burden of tax and social spending cut and the intensity of competition heightened further. This is a forlorn hope. All that will happen is that more and more people will be excluded from full participation in the mainstream economic system. Unemployment will mount rapidly and generate even more crime and misery as social welfare payments are whittled away. Too lazy or complacent to seek alternatives, politicians, academics and commentators will cheer this immiseration on, arguing that the more rapidly a country adjusts to world

market conditions by getting its wages and other costs down, the brighter its future will be.

"The most worrying aspect of the present crisis is that, for the first time in history, the rich no longer need the poor" Pierre Calame, the president of the Foundation for the Progress of Man told a conference I attended in Paris in June 1993. He went on to explain that, in the past, the rich had always needed the poor - as servants, to grow food, to build their houses and to make the goods that they required. Now, however, many of the jobs that the poor had done were performed by machines and, as far as the rich were concerned, it was unnecessary for as many people as previously to be retained within the economic system. The surplus was therefore being expelled and maintained in limbo at the lowest level of public support possible without them becoming a serious threat to the well-being and equanimity of the better-off.

But if the rich can manage without the poor as a result of technology, can the poor manage without the rich? I believe they can, and the ways in which they can do so are what the rest of this book is about.

### *Notes*

1 *Financial Times*, 18/2/93

2 Telephone conversation with Centre Point, 30 July, 1994.

3 The total number of burglaries in England and Wales in 1971 was 451,537, and the number of thefts and cases of handling stolen goods recorded by the police was 1,003,645. The total number of thefts of all types was therefore 1,454,172. In 1992, there were 1,355,274 burglaries and 2,851,638 cases of theft and handling, giving a total of 4,206,912 crimes, which is 2.98 times higher. Figures supplied by the Home Office Press Office, 9/6/94.

4 *After the Gold Rush*, Century, London, 1994, p50.

5 *The Guardian*, 3/11/93 and 12/10/94

6 *The Guardian*, 13/4/95

7 *The Death of Money*, Simon & Schuster, New York, 1993, p. 51.

8 Statistics supplied by the National Union of Knotwear and Allied Trades, 13/6/94

9 Author's estimate.

10 See Chakravarthi Raghavan, *Third World Resurgence*, No. 29-30, January 1993, p. 42

11 Telephone conversation.

12 'The Share of Wages in the National Income', *Economic Journal*, June 1952.

13 The deficiencies of national income as an indicator of economic welfare are discussed at greater length in my book *The Growth Illusion* (pp9-14). There is also a discussion of the pioneer attempts to improve on it.

14 *Measuring Sustainable Economic Welfare - A Pilot Index: 1950-1990*, Stockholm Environment Institute, Box 2142, S-103 14 , Stockholm, Sweden, and New Economics Foundation, London.

15 *The Genuine Progress Indicator: Summary of Data and Methodology*, by Clifford Cobb and Ted Halstead, September 1994, available from Redefining Progress, 116, New Montgomery, Room 209, San Francisco, CA 94105.

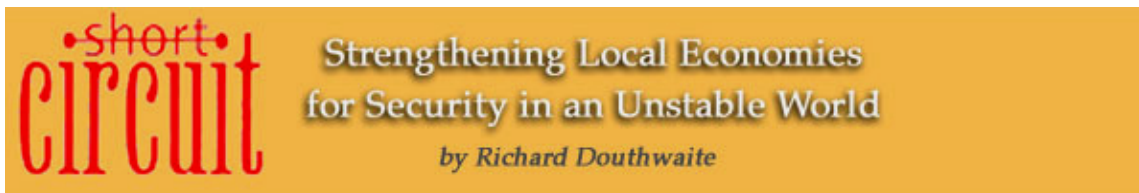
16 *Towards a Sustainable Economy- Six proposals to take a new look at statistical figures* by Hans Diefenbacher, mimeo, n.d., available from the author at FEST, Schmeilweg 5, D-69118, Heidelberg, Germany.

17 *Social Trends*, HMSO, 1994.

18 Quoted in an article on the growth of an underclass in Europe as a result of long-term unemployment, 30/7/94.

19 *The Economist*, 25/9/93.

20 *The Economist*, 1/10/94, Global Economic Survey, p7.



## Chapter Two

### CREATING ENOUGH ELBOW ROOM

*In the world economy, only a very limited range of activities is commercially feasible in most communities because of the intensity of competition from outside. We must therefore build independent, parallel economies if we are to fill more of our needs for ourselves.*

The last chapter attempted to make two important points. One was that a large part of the world's population has lost the means and the ability to provide for itself and has become dependent on a single, highly unstable economic system which has no use for a growing proportion of it.. The second was that for the next few years unless there is a trade war, politicians are unlikely to be willing or able to protect their citizens from being damaged by the world economic system even though it is actually running backwards and making life worse almost everywhere.

If both points are valid, is there anything that people like us can do? Can we achieve a better balance between the world economy on the one hand and millions of local economies on the other, many of which have contracted almost to vanishing point or are rapidly withering away? To put this another way, can communities limit the scope of the industrial system and its individualistic culture without governmental help and by so doing create a protected space within which local, peasant-type economies and collective cultures can be recreated or revived?

Before answering these questions, I need to define two terms. First, by a peasant economy I mean a society in which most families own their means of making their livelihoods, be this a workshop, a fishing boat, a retail business, a professional practice or a farm. In such an economy, families would, of course, be free to join with other families to own the source of their livelihoods collectively. Second, by the industrial economy, I mean the system under which activities are primarily ways of making profits for shareholders rather providing ways of life. In the industrial system, groups of investors typically put up the capital and employ workers to carry their ventures out, paying them wages which are regarded as a cost to be minimised rather than a gain. In the peasant system, those wanting a way of life which will also provide them with a livelihood find or borrow the capital to employ themselves and count their wages as a benefit.

The difference between the industrial and peasant systems is not only that one seeks to minimise the returns to labour and maximise those to capital, while the other wants to minimise the return to borrowed capital and maximise a wide range of benefits including income for the group involved. There is also a difference of scale. An investor-owned,

industrial-system venture can grow extremely large through mergers or by ploughing back its profits, the techniques which General Motors - with 251,130 people on its payroll and an income which exceeded the GNP of all but twenty-one countries - used to become the biggest company in the world in terms of employment at the beginning of the 1990s. Peasant projects, by contrast, tend to stay fairly small unless they adopt the industrial approach and employ people who are not shareholders or participate in joint ventures with investor-financed firms. Many of the bigger Irish agricultural co-ops owe their size to exactly these non-co-operative strategies.

If there was ever the political support, a better balance could be achieved between the industrial and peasant systems by enacting laws limiting the size to which investor-financed enterprises were allowed to grow and which split big businesses into hundreds of employee-owned parts. In addition, shops and factories could be barred from expanding beyond a certain size and restricted in the type of technology and the amount of capital per worker they could use. Similarly, to keep more families working the land, farmers could be prevented from increasing their acreages. But these top-down tactics are pipe-dreams in the present climate and we have no alternative but to work from the bottom up. In other words, rather than changing the law, we will have to change attitudes and ideas - and consequently behaviour - if we are to build peasant-system economies strong enough to survive the pressures and instabilities of an industrial-system world. Here are three approaches I think we will have to adopt to achieve a satisfactory co-existence.

## **CHANGE NUMBER 1**

### **We must begin to use local resources to meet community needs rather than the wants of markets far away**

At present, all our thinking about the right way to bring prosperity to the places in which we live boils down to identifying goods and services that can be made in or provided from our communities to be sold to people outside. Mainstream economists tell us that with the money we earn from these activities, we will be able to buy the goods and services we ourselves need from wherever in the world they are cheapest and, because each community everywhere will eventually produce and sell only those things which they can provide most effectively, everyone everywhere will be able to have more goods and services and be better off than if they tried to do everything for themselves.

This indirect way of meeting needs worked well when most of the goods and services people needed were still provided from their own areas but now that communities are almost entirely dependent on outside supplies it has become much less satisfactory because of the increased levels of competition and instability in the world economy. For example, if a community organises golfing holidays for wealthy Swedes as my town has done, it may bring extra money into its area for a year or two but, eventually, several dozen other destinations are bound to offer very much the same sort of holiday too, bringing everyone's prices down. This increases the wealth of the Swedes in relation to

the communities competing to serve them and explains why, since world trade has become so very important, the gulf between poor nations and rich ones has grown.

After being forced to give price reductions, the communities will be left with a much smaller income for themselves once they have paid outsiders for food, drink, heating oil, electricity, replacements, labour taxes and so on than they expected when they first planned the holidays. This might not be too bad if they were able to shrug their shoulders and go back to the way things were but this is rarely possible: guest houses and hotels which have borrowed to build extra rooms and taken on extra staff now have higher overheads and will find it financially ruinous to revert to their previous levels of turnover. Their dependence on an income flow from the outside world has increased, and, consequently, so has their community's. The conventional economic remedy for the reduced margins is usually to suggest that the community finds another source of high-paying holidaymakers or takes up some other enterprise altogether and makes good profits from that until rivals catch on and, by offering similar products, bring everyone back to square one and force the whole find-a-new-product-or-market cycle to start again.

By offering themselves as holiday destinations in a highly competitive market, the communities have not only become more dependent on outside earnings and seen the wealth of their target customers rise in comparison with their own. They have also increased the risk of economic disruption they run since, should the exchange rate vary, a postal dispute prevent bookings coming in, air traffic controllers strike or a recession develop in the Swedish economy, those involved in the tourist trade could be very hard hit, with knock-on effects on the rest of their communities.

In current conditions, then, selling things outside our immediate areas to earn the money to buy the goods and services we must have to survive cannot be considered the basis for a sustainable, stable local community. What we must do instead is to look at the resources of our areas and see how they can be used to meet our communities' vital needs directly rather than via the conventional, indirect, produce-for-someone-else-and-buy-one's-requirements-in route. It's true we have been taught that the indirect route is more efficient because it takes more resources to grow bananas in Ennis, Essex or Essen than in Ecuador. My response to this is threefold. One is that the much-touted efficiency of the world trade system is a grotesque myth, as I will explain shortly. For the moment, we only need ask ourselves how a system which condemns so many people to spend their lives in involuntary idleness and uses so many scarce resources to do the simplest things can still be regarded as efficient, particularly as we saw in the last chapter that as some countries' output increases, their citizens are actually receiving a smaller amount of economic welfare year by year.

Secondly, even if the indirect system was more efficient, we ought at least to discuss how much inefficiency we would tolerate from the direct route in order to reduce the risk of our lives being blighted and our livelihoods disrupted by instabilities in the external world. Most of us pay premiums for house or car insurance every year, accepting the certainty of a small loss in exchange for avoiding the risk of a big one. As communities we should also be prepared to pay for insurance, in this case against economic disruption,

particularly as local economies which boast a wide range of activities are not only more stable but provide much more scope for their members to find niches within which they can fulfil themselves.

Thirdly, bananas are non-essentials and if they were imported as a direct exchange for some non-essential we grew, the fact that we relied on other people to produce them would not matter: either party to the trade would be able to terminate it whenever they wished without seriously harming the other. Our goal should be to minimise our dependence on external trade not to phase it out altogether. Trading outside our communities should become something we can engage in if we choose and then on our own terms, not something which is vital for our survival.

## **CHANGE NUMBER 2**

### **World prices must not determine what we produce**

Existing levels of prices or profits cannot be allowed to decide whether we should make or grow something in our communities or not. This is because there is no connection between an item's value to our community and the price our neighbours pay for it in normal times. True, most economists and right-wing politicians believe that market prices should determine what is produced, in what quantity, by what method and where, because it is 'uneconomic' and 'inefficient' to take other factors into consideration. But this is because they believe that the market price of something is equal to its value and because all their thinking is in terms of the industrial system. Efficiency, however, can only be measured in relation to one's objectives and if we have objectives which those running the industrial system are not permitted to share such as satisfying work, stability, sustainability and fairness rather than the maximisation of returns to investors' capital, our success or failure must be measured with respect to our targets rather than theirs.

In terms of progress towards community goals, local production for local use can be much more efficient than production for outside markets. This is because a community is interested in a much wider range of benefits than solely the profit a business makes. It is, for example, interested in the total income - the wages, the profits, the payments for local materials - that the business brings into or keeps in the community's area. Investors, on the other hand, are usually only concerned with the tiny fraction of a business's total income flow which ends in their hands, an outlook which, from a community's point of view, is very much the tail wagging the dog. Moreover, because a community needs its income for long-term tasks like raising children, it wants to be sure that the activity will continue for many years. Investors, on the other hand, tend to have very short time horizons and frequently give up valuable future benefits to get more immediate returns. In a 1994 survey by the Confederation of British Industry, two thirds of the companies which responded required investment projects to pay for themselves in three years or less<sup>1</sup>. What is efficient for our communities is therefore very different from what is efficient for investors in the wider world.

Unfortunately, the future of the planet as well as of communities is clouded by the 'market price equals value' type of thinking. In 1990 a Nobel prizewinner for economics,

Professor William Nordhaus of Yale University, was anxious to calculate how much the United States should be prepared to spend to lower the risks presented by global warming. Because agriculture and forestry, the sectors which would be most affected by any warming, made up only 3% of the United States' national income (which is, of course, a measure of its output at market prices) he proceeded to assume that this was their value to its citizens. In other words, he overlooked the fact that all the non-agricultural things which go to make up a modern economy and which would be relatively unaffected by the 2-3 degree rise in average temperature he was assuming - intensive care units of hospitals, underground mining, science laboratories, communications, heavy manufacturing and microelectronics were the examples he gave - would be valueless if people had nothing to eat. This remarkable oversight enabled him to conclude that, as by no means all food and forest production would be lost, the maximum damage likely to be suffered by the US as a result of global warming was of the order of 0.25% of its national income. Consequently, after allowing a generous margin for uncertainties, he argued that it was not worth the US spending more than 2% of its national income each year to reduce greenhouse gas emissions.

Nordhaus's verdict would be amusing if it had not reduced the scale and urgency with which the world's governments have responded to the climate crisis and if fellow-economists were not still citing his paper with approval. By confusing price with value, he failed to recognise that our food, raw materials and energy supplies are worth much more to us than are other products and services on which we might spend the same proportion of our income. Food and transportation make up roughly equal shares of the average American's budget but he or she would give up practically everything to continue eating when faced with death by starvation, but considerably less to secure petrol to keep running a car.

We must not make this mistake. In other words, we must not use world prices to determine which activities are profitable and can therefore be carried on in our communities because, if we do, we might find that the production of items of the greatest value to us, such as food, clothing, light and heat, are ruled out and that increased economic independence is therefore impossible. Indeed, we could well find that the only things which are profitable to do at world price levels are those we are doing already, plus one or two we have only just thought of.

But if a lot of the types of production necessary to make our communities more self-reliant would be loss-making at current, externally-dictated prices, we have a huge problem on our hands because even in a peasant economy, no commercial activity will continue long unless those engaged in it get a reasonable return for their efforts and on the capital they have involved. A generation ago, as we discussed in the last chapter, governments enabled national prices to differ from those on the world market using import duties and quota controls. This widened the range of production which was commercially possible. Now, however, these methods have been outlawed by international agreements and there is no way of preventing world prices from setting local ones in the places in which we live. As a result, unless we can find some way for local producers to make a profit supplying us with a full range of essential goods and



services at prices identical with those from outside, our attempts to achieve greater self-reliance are likely to be stillborn.

At first sight our quest for such a way seems doomed to failure, particularly as there are only two basic approaches local producers can use to lower their prices. One is to be so super-efficient that they can match their outside competitors on price whatever the outside labour costs, whatever the technology, whatever the source of raw material, whatever the economies of scale. The second is for us to reduce the prices at which we supply our labour and capital to local businesses by enough to make their prices competitive: in other words, to give them a subsidy. Neither of these strategies seems promising but let us look at both more closely to see if anything can be done.

## OPTION 1

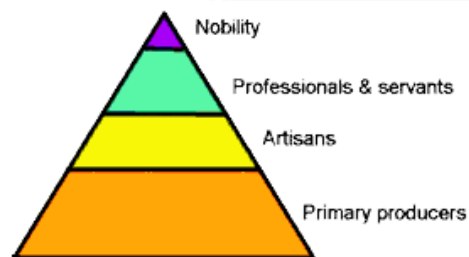
### *Becoming super-efficient*

Whatever Professor Nordhaus might think, agriculture, forestry, fishing, quarrying and mining are primary activities which support everything else. A geography teacher I once had at school explained it roughly like this: 'At one time most people were farmers. As their knowledge and skill increased from generation to generation, they were able to produce more food and raw materials than they needed for themselves and this surplus was available to support an increasing number of people in other activities, including crafts, religion, the military and government. Gradually, a pyramid-shaped social and economic structure developed, with the broad mass of the people involved in agriculture or mining at its base, a manufacturing or crafts sector employing a smaller number of people above them, a still smaller professional, military, religious and administrative caste higher still, with the apex made up of the monarch and the nobility.'

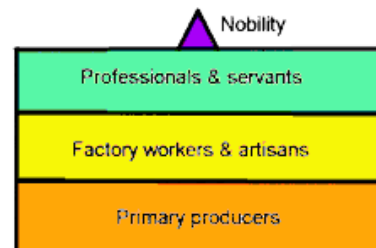
That was where my teacher left his analysis but we can take the story on.

*Short Circuit* by Richard Douthwaite: Chapter 7

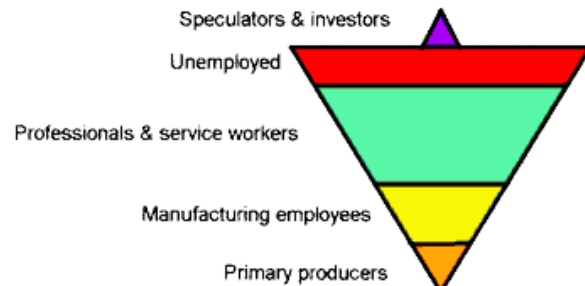
Graph 2.1 The world turned upside down



Five hundred years ago, most of the population of working age was engaged in growing food or in some other form of primary production. Output per person was low, so only a limited number of people could be supported in other activities.



The Agricultural Revolution increased output per farm worker substantially and thus allowed many more people to work in secondary and tertiary occupations. By 1800, British society had a rectangular structure.

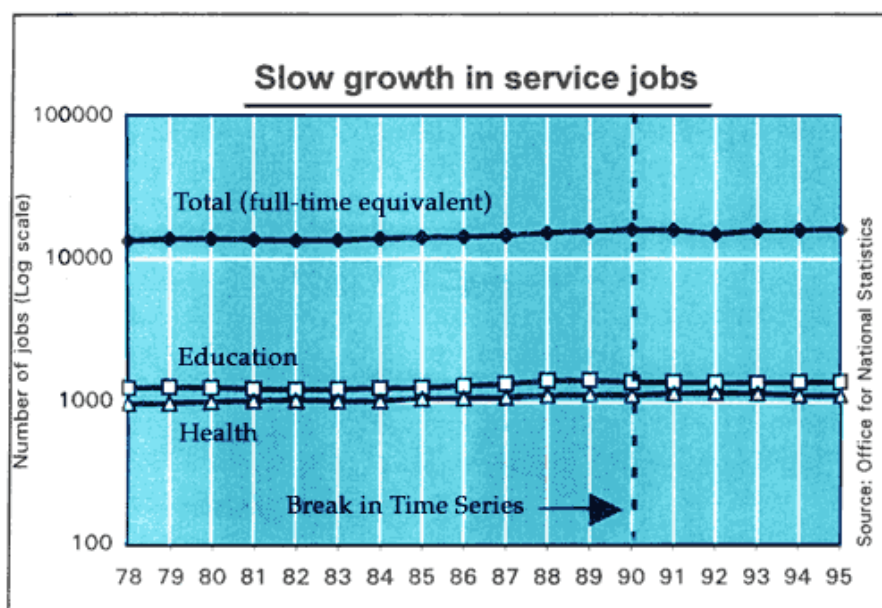


Today, advances in technology have allowed a handful of farm workers, miners, foresters, and fishermen to meet the primary production needs of the rest of the population. Society is now shaped like an inverted pyramid.

By 1800, as a result of the increases in productivity brought about by the Industrial and Agricultural Revolutions, the British economy was no longer shaped like a pyramid. Roughly equal numbers of people were engaged in the primary, manufacturing and service sectors, making it more like a square<sup>2</sup>. Now, two hundred years later, we are back to the pyramid again, only this time it is inverted, since only a tiny number of people - just 3.2% of the working population in England, for example - is involved in primary production and the manufacturing sector itself is shrinking too: in England there was a 17.6% fall, from 28.9% to 23.8% of the employed workforce, between 1981 and 1989. The service sector will probably offer fewer jobs in the future, too, (see panel) while the number of people who are involuntarily jobless has grown.

#### PANEL: SERVICE SECTOR JOBS MAY BE IN DECLINE

The idea promoted by politicians that the service sector will absorb all the workers losing their jobs in manufacturing industry and primary production may be badly wide of the mark. Professor Jonathan Gershuny of the University of Essex has been pointing out since 1978 that 'with a few exceptions, purchases of services by households in most developed countries have actually been declining as a proportion of total expenditure over the last two or three decades'<sup>3</sup>. This is because families have been doing more for themselves - for example, they have replaced outside laundry workers and inside domestic servants with vacuum cleaners, dishwashers and washing machines, and do their own painting and decorating.



Graph 2.2 If two part-time jobs are equivalent to one full-time, the number of full-time equivalent service-sector jobs in Britain grew by 12.8 per cent between 1978 and 1995, although a break in the way data is given means that this rise is overstated. The number of full-time equivalent jobs in the health and education parts of the sector barely changed over the period.

The reason why this trend has not become apparent is that it has been masked in the statistics by an increase in the number of jobs in health services and education as a result of the increase in state expenditure in these areas in the 1950s and 60s and, more

recently, by industrial firms contracting out specialist activities such as cleaning or designwork which were formerly done in-house. Since state health and educational employment is unlikely to increase in future because of the reluctance of taxpayers to finance even its present level and since the scope for additional sub-contracting by industry is limited by both the relatively small proportion of the workforce still occupied there and the amount of sub-contracting which has already been done, overall service sector employment is unlikely to grow. 'The services do not seem to offer a very promising basis for the expansion of employment,' Gershuny says. 'We may be seeing now an overall decline.'

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The whole modern economic structure is therefore supported on a tiny primary-sector employment base. However, everyone not involved in primary production still needs food and raw materials from it to survive and, somehow or other, must acquire the right to tap into the supply line to siphon their requirements off. There are many ways they can do this. They can sell goods and services to the primary producers themselves, or to others who provide primary producers with such goods and services or to yet others who, directly or indirectly, perhaps at three or four removes, are involved in the processing or distribution chain. People who are unable to supply such goods and services because they are too young, unemployed, sick, or too old must buy their primary supplies with income transferred from people who are.

As the number of people involved in primary production shrinks because of improvements in productivity or imports from overseas, those displaced from the sector must find places for themselves further up. More and more people have to stand on the remaining primary producers' shoulders, balancing themselves and supporting others above them in ways that become increasingly complex. Each person tries to make their activity an inescapable part of some branch of the lengthening and increasingly complex food chain. As a result, the margin between the price the primary producer receives for his product and the price the ordinary consumer pays for it has to grow continually to support the increasing number of intermediaries in the system and the people who depend on them, directly and indirectly.

For example, in British agriculture, 2% of the working population produces just over half the country's food in expenditure terms, the rest being imported. If the foreign farmers have the same labour productivity as the British, this means that it takes four farmers to support 96 non-farmers, that is, the ratio of farmers to others is 1:24. Assuming that farmers earn much the same after-tax income as the rest of the population, an average of only a 24th of each non-farmer's after-tax income, that is, 4%, will find its way into the farmer's personal bank account. Since roughly a fifth of people's after-tax earnings is spent on food, this means that only around 20% (4% divided by a fifth) of the average food purchase is left with the farmer, the rest going to shopkeepers, manufacturers and other intermediaries in the food chain or to firms which supplied him or her with machinery, fertilisers and other inputs. In other words, roughly 80% of food spending goes to non-farmers to provide incomes and pay taxes so that everyone can tap into the food supply line.

Two things can be said about this. One is that the 80% estimate gives some idea of the scope for creating incomes in our communities by eliminating inputs and services provided from outside. The other is that if we force the present food production and distribution system - or any other part of the industrial economy - to become more competitive, we will destroy some of the ways in which people support themselves and others in the inverted human pyramid. Those dislodged will either find some other way to stay up there or drop off altogether by emigrating, committing suicide, or dying prematurely, as some unemployed people do, from stress and despair<sup>4</sup>. The unemployed are, of course, still up in the pyramid, supported by the rest of the community through its taxes. Analytically, they are a sub-set of the service sector which provides no paid services in return for the primary products they consume. Achieving increased competitiveness by means which increase unemployment simply shifts people from a place in the pyramid where they have an economic role to one in which they do not. Individual firms gain from the shift because the cost of supporting the people involved is moved from the companies' shoulders to those of the nation as a whole. Apart from the companies' shareholders, everyone loses out.

It is not only in primary production that the necessity to support increasing numbers of people at higher levels of the pyramid has widened the gap between what producers get for their products and the price the consumer pays. Exactly the same has happened in manufacturing. Consumer electronics and domestic appliance retailers frequently take a 100% margin while British clothing chainstores and mail order houses generally work on retail mark-ups of 150 to 200%. "Their margins have been high for as long as I've been in business" says a friend who runs his own clothing company. "In the last ten years, however, they have been sourcing from further afield, using the lower prices to increase their margins while keeping the price to the customer down."

These large and increasing margins in highly competitive markets mean that the industrial system's long and elaborate distribution network is forced to charge as much or more for getting products to the consumer than those products cost to make. These distribution networks are the reason I referred to the reputed efficiency of the modern economic system as a grotesque myth. They are the industrial system's weak spot and a key area for attack in any effort to increase local self-reliance. If a local firm or farm has higher production costs than an external one but can short circuit the normal methods of distribution by selling more directly to local consumers, the savings it should be able to make by avoiding the network's 150% mark-ups ought to be more than enough to enable it to survive. However, if local producers distribute their products over a wide area through normal channels, they will acquire their external competitors' cost structure and, if they lack any other advantage, almost certainly fail. Short circuiting as much as possible of the external pyramid by selling direct is therefore the key way to open up a wider range of profitable local production possibilities.

## OPTION 2A

### *Cutting labour costs*

The two other ways by which small, local producers can come to compete on price with larger outside firms are almost as powerful as selling direct. They involve the community stepping in to lower the labour and capital costs of community firms. Let's look at labour costs first.

Workers all over the world are being asked to accept lower wages as an alternative to losing their jobs: can we ask people in our communities to accept lower wages in order to create them? The first thing which we need to recognise is that there is an important difference between the two situations. If workers accept less pay from a firm which is selling internationally, there is a very real danger that their sacrifice will compel workers elsewhere to accept lower wages too and thus initiate a world-wide bout of competitive wage-cutting which impoverishes employees and leaves only those consumers whose incomes have not been cut as beneficiaries.

For example, in 1992, Waterford Crystal made some of its workers redundant, forced the remainder to take a 25% wage cut and began importing cheaper cut glass items from eastern Europe. This left its smaller Irish rivals with no option but to cut wages too. "Prices in the market have reduced and if you reduce prices you have to reduce your costs. We must maintain our relative position in the market place" the managing director of Cavan Crystal, Brian Williams, told *The Irish Times*, explaining why the company was seeking a 15% wage cut after its best trading year for some time. "Galway Crystal's workers have accepted a wage cut of 20%" Mr. Williams added. A fourth firm, Tipperary Crystal, was also said to be negotiating cuts <sup>5</sup>.

From an economic point of view, all that this type of wage-cutting does is to shift the world supply curve for the particular product upwards, making more available at any given price while shifting the demand curve down because of the consumption effects of the lower wages. These consumption effects are often ignored: during the debate in the US on the North American Free Trade Agreement (NAFTA) and the Uruguay GATT round, pro-free-trade commentators frequently argued that poor Americans would suffer badly if imports of cheap shoes and clothing were restricted in order to protect domestic manufacturers. What the campaigners failed to ask themselves, however, was who made the clothes and footwear in the American factories and how *their* purchasing power would be affected if their jobs disappeared.

If a firm sells internationally, the purchasing power the workers give up by agreeing to take less pay gets distributed to consumers across the globe and there is no way of ensuring that any of it will return to the communities from which it came. By contrast, if a group of unemployed people decides to set up a co-op producing goods for sale in their community and pays themselves less than the normal rate, all the benefits of their decision stay within the area. No wealth has been lost. Instead, it has been created to the extent that goods or services are being produced where none were produced before.

Moreover, there is no risk of setting off a chain of mutually-destructive wage cuts across the world. Lower wages should therefore be resisted as a method of creating or preserving jobs unless all the goods or services to be produced by the enterprise will be sold within the area where it is located.

But if we agree to accept less than the going rate from a local company whose market is entirely local, we should seek more satisfying work in return. All of us already quote different wage rates on something approaching a local-versus-international basis. For example, when we paint a bedroom at home, we don't charge the family for doing so: we get our reward in other ways. It is the same when we make up costumes for a local dramatic society play - we do it, not for money (in fact, the chances are we'll end up out of pocket) - but because we like being involved. On the other hand, we would never dream of accepting a consultancy contract from an international bank for anything less than the maximum we could negotiate for it.

Both the house painting and the theatrical costume-making represent one end of a money-to-satisfaction continuum on which most of us operate: they provide absolutely no cash but a great deal of the two forms of satisfaction every normal person craves, one of which stems from successfully tackling an interesting and worthwhile project and the other from being appreciated. The bank job represents the other end of the continuum, delivering a lot of cash and a limited amount of either form of satisfaction because no-one outside the bank (and probably within it) will show any gratitude if one fulfils the contract successfully and there is a fair chance that the high income it brings will arouse envy amongst one's friends.

This trade-off between wages and satisfaction is highly complex, particularly as money can be the least important thing that people get from a job. Indeed, being paid for doing something can sometimes damage the satisfaction the activity brings. In a goldmine of a book, *The Market Experience* <sup>6</sup>, Professor Emeritus Robert E Lane of Yale University describes an experiment in which students were paid to do a boring task and got more pleasure from it than a control group which was unpaid. However, when another batch of students was paid to do interesting work, they found it less rewarding than those who had done the same task for nothing. In fact, the paid group doing the interesting job got even less enjoyment than those who had been happy to do the boring task unpaid because they thought it was useful. In another test, unpaid volunteers showed more commitment than paid workers: they were more likely to continue with their tasks when their supervisors left the room.

Lane quotes from a study by F. Thomas Juster which shows that, almost regardless of the nature of their work or their social class, people prefer their jobs to most of their leisure activities:

People do not work for 'nothing' but what they do work for is often not just the pay they receive..... They may work because meeting the challenges of work increases their sense of personal control, or out of a sense of duty, or because of a pressing need to achieve some high standard of excellence. [Whatever] their motives may be, people evade the market's focus on

exchange, for these motives are satisfied by internal rewards that do not depend upon exchanging money for work.

In my view, the internal rewards Lane mentions are best provided by firms owned and controlled by those working in them which see their role as serving their communities and work not only a source of income but one of the main ways people fulfil themselves. I also think that unless we can construct environments which foster such firms, cut-throat international competition will ensure that in a few years' time, highly-paid jobs will be available only to a fortunate few and that the choice for many of the rest of us will be between unemployment and a low-paid job in a large, highly-pressurised firm scrambling for its place in the world market, a firm to which we can rarely make an individual contribution and matter as people not at all.

If I am right, taking a lower cash wage to work in a peasant-economy firm may turn out in the end not to involve any sacrifice at all. Indeed, in spite of all I have said, these firms may well be able to survive and prosper without paying lower wages than international ones particularly if the worker/shareholders accept part of their pay in a local currency. This is a possibility we will explore in a later chapter.

## OPTION 2B

### *Cutting capital costs*

Local firms can also be helped to match external competitors on price if they have access to capital at low interest rates, or, better yet, no interest at all. This is easier to arrange than it might seem: it is largely a matter of enabling firms to avoid borrowing from the high-street banks using techniques explored in detail in Chapters Three and Four. One method involves the community creating its own currency which it can lend to companies at very low cost to spend instead of national currency within the local area. This is already being done in Switzerland where, for the past sixty years, small and medium-sized firms have been able to avoid borrowing large sums of working capital from their banks by creating it amongst themselves. They pay no interest, just a small service charge to keep their mutually-owned system running. Their system is explained in a panel in Chapter 3.

Even when a firm has to have a national currency loan, it should not have to come from a non-local bank. This is because the difference between the rate of interest national or international banking groups offer community savers and the rate they charge community borrowers is often excessive and always drains resources from the area. In 1994, for example, Irish savers received between 0.25% and 0.75% interest on deposits of less than £5,000 at a time when small businesses were paying up to 10.95% for their overdrafts. Much of this margin of over 10% could have been eliminated if local savings had been channelled to local enterprises through community savings and loan institutions especially if, as in many credit unions, a large part of the work involved was done on an unpaid, volunteer basis.

In fact, community bank interest rates can be very low indeed as many people are happy to waive their interest altogether in order to help local projects and, as a result,

businesspeople in Denmark have been able to obtain interest-free loans from local co-operative banks for an annual 2% service charge. Details of this are described in a panel in Chapter 4.

### **CHANGE NUMBER 3**

**Our key production processes need to be run entirely without inputs from the world system.**

If we are trying to build a local economy because we can no longer rely on the world system, our new economy needs to be independent of the world system at every step. For example, it makes little sense to replace external food supplies by using agricultural techniques which lead to crop failure if fertilisers or sprays cannot be brought in from outside. That is just exchanging one form of dependence for another and Murphy's Law predicts that, if we took such a route, the price of agrochemicals would go through the roof. Airlines are built with at least one completely independent back-up to every important system and our economies should be the same.

In the recent past local economies had back-up because, as transport systems improved, it became increasingly possible for communities to turn to the outside world whenever their crops failed or some other disaster happened. Localised famines became much less frequent. Now, however, the easy availability of goods from outside has all but eliminated local production for local use and the back-up has become not just the main system but, effectively, the only one. Worse, this sole system now has very little back up within itself because the giant corporations which control so much of world trade deliberately eliminated spare capacity and duplications whenever they took over firms which had built up the trade.

Not all the components of the world system are equally unreliable, of course, but since they are interlinked, a failure in one is bound to have knock-on effects on the others, distorting their price or affecting their availability. There is therefore no alternative to eventually duplicating them all. Nevertheless, it obviously makes sense to give priority to building alternatives to those parts of the world system where the risks are highest. This is undoubtedly the financial system which could break down completely at any time, as the panel explains.

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#### **PANEL: JAPANESE BANKS COULD CAUSE FINANCIAL MELTDOWN**

"The scope for a catastrophic debt deflation, with its epicentre in Japan, is much larger than in 1929 " Peter Warburton, the chief economist at a London firm of securities dealers wrote in *The European* in early 1994<sup>7</sup>. He was concerned that after making huge capital write-offs as a result of the collapse of the Tokyo property market, the big Japanese banks faced the prospect of having to call in many of their loans prematurely if the Nikkei stockmarket index fell below 16,000 for very long. And that, in turn, could cause the world's financial system to collapse.



The banks' situation has not improved since that article. Their problem is that a large part of the capital left after their property losses is in the form of unrealised gains on shares they own. If those gains are wiped away by a stockmarket fall, the Bank for International Settlements, the central bankers' central bank, will insist that their lending is reduced to restore their capital-to-loan ratios to international standards. But if the banks had to call in loans on any scale, forced asset sales by their borrowers would cause property prices to crash around the world. This would weaken the loan book of almost every major bank, possibly forcing them to call in loans too and leading to a rapid, world-wide deflation - a long-term fall in the general price level.

This could come about, Warburton said, if share and property prices began to fall so sharply as a result of the forced asset sales that people and institutions which had put all their wealth into fixed assets found themselves with no money and no way of borrowing any. Those hit in this way would cut back their spending sharply, driving wages and prices lower still and causing companies to collapse as they became unable to service their debts, thus pushing prices down another notch. "This is a description of a classic deflationary spiral" he wrote, suggesting that governments might be powerless to prevent it: "Unfortunately, few governments used the opportunity of the late 1980s economic expansion to straighten out their finances. Their ability to fund large-scale deficit spending in the event of a global emergency is therefore called into question."

At the time Warburton wrote his article, the Nikkei index was being artificially maintained at around the 20,000 mark by the Ministry of Finance which was discouraging firms from issuing new shares. The previous year, before this restriction came into effect, everyone had had a nasty fright when shares sold during the part-privatisation of a railway company had caused the Nikkei to drop to the crucial 16,000 level<sup>8</sup>. It returned to the danger zone in early 1995 when a 20% rise in the value of the yen as a result of the 'flight to quality' during the Mexican peso crisis damaged Japanese companies' export prospects. The authorities were able to save the day briefly by reducing interest rates but had to cut them again during September after four insolvent financial institutions had to be wound up. This second cut brought the prime rate down to only 0.5% and, since interest rates cannot be negative, effectively meant that the tactic could not be used again. International credit-rating agencies reacted by marking down the Japanese banks' creditworthiness gradings with the result that they had to pay a higher rate of interest than large multinational companies for funds they borrowed from non-Japanese banks. The risk of a collapse became so acute in October 1995 that the United States felt it necessary to announce that it had \$150bn ready in case a bank collapsed and caused a run on the whole system<sup>9</sup>.

The threat from Japan is not the only one the world's monetary system faces. Other risks have been created by the lifting of controls on the way the financial markets can operate. "The weakest link in the chain will give and financial deregulation is a predictable way of creating more weak links in the world system" Rudiger Dornbusch of MIT told a major conference on the risk of an economic crisis in 1989. Laurence Summers, the (then) chief economist at the World Bank told the same meeting that technological and financial innovation had made speculative bubbles which ultimately burst more likely today than had been the case historically. "The risk of a currency crisis is now greater than it was when exchange rates were fixed" he said.<sup>10</sup>

Although events such as the collapse of the Bank of Credit and Commerce International (BCCI) in July 1991 and the speculators' success in forcing sterling, the franc and several minor European currencies to devalue in 1992 proved both men right, nothing has been done to buttress the system. In 1994 even money market traders began to complain about the activities of 'hedge funds' - huge pools of capital, much of it borrowed from major banks - which speculate massively in the market. One of the funds' favourite ploys is to sell large quantities of a stock or a currency which they do not own in the hope of forcing its price down sufficiently so that they can buy enough to fulfil their sales contracts at much less than they were paid, thus making a good profit. The four biggest funds control over \$25bn. between them and include Quantum, the fund run by George Soros which claimed to have made £1bn when sterling was forced out of the European Monetary System in 1992 and then lost \$600 million speculating against the yen eighteen months later.

It is not unusual for hedge funds to borrow twenty times their assets. This means that in the unlikely event that Soros wished to bet everything on movements in a single currency, he could put \$200 billion into play and all 800 funds operating throughout the world could mobilise \$2 trillion. "They have undoubtedly produced volatility beyond all previous bounds" one trader said after the markets had taken a dramatic fall in early 1994 11. "Seldom can so many highly-paid economists and analysts have been at such a loss to explain what was happening" The Economist commented after the same event, reporting widespread fears that, if the funds' speculation turned badly sour, they could endanger the banks which had lent them money. Soros himself agreed that there was such a risk in evidence he gave to the US House of Representatives' banking committee a few weeks later.

Although the future, indeed the survival, of hundreds of millions of people has been affected by the hedge fund's activities, no government has yet acted to keep them in check.

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A community wishing to minimise the hardships it would suffer if the world financial system collapsed should obviously make monetary independence its first priority. A currency and banking system which can continue to serve a particular area regardless of whatever financial convulsions take place outside that area is fundamental to the construction of a self-reliant local economy, particularly as it also creates an environment within which other aspects of self-reliance can be achieved more readily. Chapters Three and Four describe how such community currency and banking systems can be built.

Once a local financial system is in place, the community should turn its attention to meeting its irreducible energy, food and clothing needs from its own area. In fact, I rate community energy independence second only in importance to monetary independence because food production and many other activities depend on energy use. Moreover, external supplies of energy are highly centralised and insecure and wars have been fought recently to safeguard them. But food production needs to be local too and not just because outside sources might dry up or price fluctuations throw the local economy out of balance. Unless a community can feed itself, it will need to generate a substantial

external income to buy its nourishment from outside and the enterprises it will need to operate in order to do so will not only be subject to the fluctuations of the world economy but will also absorb more and more local resources as the outside economy becomes increasingly competitive.

The four basic steps towards greater local self-reliance therefore are:

STEP 1 - the establishment of an independent currency system so that a community can continue to function economically, even if at a reduced level, whatever happens to money supplies in the world outside.

STEP 2 - the establishment of an independent banking system so that an area's savings can be made available to projects serving the community at interest rates such ventures can afford without passing through institutions which would be affected by an external financial collapse.

STEP 3 - the production of enough energy from local renewable resources to meet an area's needs, however difficult this might seem.

STEP 4 - the production of the area's basic food and clothing requirements without the use of inputs from outside.

This list raises an immediate question: 'Are there more steps? How far need a community's quest for greater self-reliance go? Inishbofin islanders may have grown flax to make their own fishing lines but many of the things we consume today cannot be produced in our communities on any realistic basis. Cotton clothes for example: do we have to switch over to locally-grown, locally-spun linen and woollen garments instead?.'

The answer is in two parts. The first is that we only need to produce the essentials of life within our communities and, once this has been done, we can be entirely pragmatic, taking things further only if it suits us. Some clothing is obviously essential and every community should therefore use part of its agricultural resource to produce fibres to turn into garments. However, clothes are a fashion item as well as a necessity and many of us buy many more than we need to stay decent and warm. There is no need for a community to go out of its way to produce this surplus.

Once its essential food, fuel and clothing needs are satisfied, a community should only replace external products with those of its own if it still has people who want to do more paid work than is available. In other words, a community should operate as far down the outside production pyramid as necessary to generate the jobs it needs. In the case of materials it cannot produce for itself like cotton, this might involve buying the raw cloth so that it can be printed and finished locally before being cut and sewn into clothes. This, according to the managing director of an Irish firm which weaves its own fabric to make into duvets, would save about 20% of the price of the finished cloth <sup>12</sup>. If a community went a stage further and did the weaving locally with bought-in yarn, it would save an

additional 32%. And, since the raw cotton comprises only 29% of the price of the cloth, if it went the whole hog and spun yarn from imported cotton, it would save another 12%.

The further a community goes down the external inverted pyramid, the more scope it has to create a substantial rectangle or pyramid of its own. Once everybody is fully occupied, though, any further extension of the local economy is impossible unless the community can increase its labour productivity or persuade those of its members still employed in the mainstream economy to give up their jobs there.

The second part of the answer to "How far need we go?" is "Not as far as you think". This is because many products which it would be difficult to make on a community scale are not required in a peasant economy. For example, shipping containers are unnecessary to someone delivering their product next door and small firms are unlikely to want to use complex, high-output machinery for their limited production runs. As we saw in the last chapter when we discussed indices of sustainable economic welfare, a high and increasing proportion of everything produced by the industrial system is consumed by the system itself to keep running and is never enjoyed or used by people at all. Much of this internally-consumed production consists of goods and services which a peasant economy does not require.

Another question frequently crosses people's minds at this stage - What should be the boundaries of the area within which we seek to become more self-reliant? Fortunately, the answer has been provided for us by the proprietors of our local newspapers who, through trial and error over the years, have established the spatial limits within which we, their readers, are interested in each other's doings<sup>13</sup>. If the circulation area of a paper becomes too local, it will lack the advertising and commercial base on which to survive. On the other hand, if it spreads itself too widely, its readers will become tired of turning page after page on which there is little to interest them and switch to papers with a more limited coverage. Advertisers, too, resent paying high prices to reach readers living too far away to become customers and move their budgets to smaller papers covering a more limited area in greater depth. There is therefore a permanent dynamic tension between the benefits a paper enjoys if it expands its circulation area and the advantages it maintains by keeping a tight local focus. Of course, newspaper circulation areas overlap and so will our local economies. Each product or service is likely to have a different distribution area.

A local newspaper's circulation area approximates to what sociologists term a social field, which they define as 'the spatial reach of kinship, occupation and friendship within which people react in economic, social and cultural terms.' In an essay on social fields in Ireland prepared as part of a four-country EU-funded study into the appropriate scale for sustainable development, Dr. Kevin Whelan of the Royal Irish Academy wrote:

Effectively the social field may be partially, but not exclusively, defined by the local town and its hinterland. This applies to small towns with a population of 1,500 to 10,000 and their hinterlands extending within a ten to fifteen mile radius.....Through commuting, services and shopping, many cementing institutions now operate at this level - the factory, the supermarket, the secondary

school, the bank, bus and rail links, the night club. In many ways these newly-strengthened town hinterlands are the most important level in the territorial organisation of rural communities, especially since the advent of mass participation in post-primary schools. The new patterns of social interaction can be seen in marriage fields: those relatively cohesive territories from which marriage partners are drawn and which now tend increasingly to mirror the economic hinterlands of these towns. The more localised social field has been extended and the traditional territorial order of the countryside has been reshaped. However.....only the local newspapers offer some expression of the nature of these town/country interactions.<sup>14</sup>

Although Whelan says that 'long-term economic and ecological needs may best be met at a regional level' which encompasses a dozen or more social fields, this is largely because he was trying to identify sub-national units in Ireland big enough to suit the European Commission's planning and grant-administration purposes. Significantly, his quest was unsuccessful and he was forced to admit that in Ireland at any rate, 'there is no appropriate regional tier which can attach to or foster local initiatives.'

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#### PANEL: BIOREGIONS OR SPATIAL FIELDS?

Over 200 groups in the US, plus others in Europe, are working to increase economic self-reliance within bioregions rather than within social fields. Does this make much difference? How do the areas derived by the two approaches compare?

'Very closely' is the short answer. Kirkpatrick Sale, the author of one of the few books on bioregional thinking, *Dwellers in the Land*<sup>15</sup>, defines a bioregion as 'part of the earth's surface whose rough boundaries are determined by natural rather than human dictates, distinguishable from other areas by attributes of flora, fauna, water, climate, soils and landforms, and the human settlements and cultures those attribute have given rise to'. Thus a bioregion might be the watershed of a river, bounded by hills on one side and the sea on another, physical characteristics which quite obviously influenced the way human settlements and transport links developed over the centuries and hence the shape and size of the inhabitants' social fields. Of course, if a motorway is cut through the hills it will enable some people to widen their social fields without affecting the size of the bioregions it links and the correspondence between bioregions and social fields will be weakened.

In such circumstances, most British bioregionalists would regard human ties as more important than natural barriers and, tacitly at least, work on the basis of the social field. Whether Americans would work on the same basis is open to question. Indeed, it is significant that the bioregional concept was developed in San Francisco in the late 1970s by Peter Berg, a writer, and by Raymond Dasmann, an ecologist, in a country with notoriously weak community ties. Could it have been this which led them to reject social links as a way of delineating the areas within which to aim for greater self-reliance and to choose the features Sale listed? If so, their idea merely enabled them to exchange one problem for another because in many cases, particularly in the United States, individual bioregions cover such large areas that they contain much bigger human populations than is desirable if a true democracy is to be made to work.

Sale, who took Schumacher's idea that 'small is beautiful' and wrote an important 560-page book, *Human Scale*<sup>16</sup>, looking at the damage wrought when countries, companies and organisations grew too large, knows this problem better than most. Consequently, in *Dwellers in the Land*, he suggests that bioregions can be divided into sub-regions and sub-sub-regions 'like Chinese boxes, one within another' depending on their dominant natural characteristics. "Ultimately" he says, "the task of determining the appropriate bioregional boundaries - and how seriously to take *Short Circuit* by Richard Douthwaite: Chapter Two

them - will always be left up to the inhabitants of the area, the dwellers in the land, who will always know them best."

He goes on to suggest that the size of communities and social institutions should also be left for the locals to decide, provided they have 'undertaken the job of honing their bioregional sensibilities'. However, they are likely to be small:

The human animal throughout its history, regardless of continent, climate, culture or character - seems to have favored clusters of 500 to 1,000 people for the basic village or intimate settlement and 5,000 to 10,000 for the larger tribal association or extended community. Only rarely did agglomerations ever exceed this size, as with the capital cities of various empires, and even then they typically lasted for less than a century before shrinking to smaller sizes....Certainly, there is no question that the city of a million people, or even half a million most probably, has gone beyond the ecological balance point at which it is able to sustain itself on its own resources....By contrast, the small community has historically been the most efficient at using energy, recycling its wastes, reducing drawdown and adjusting to carrying capacity. A kind of unconscious wisdom operates at that level, I would argue, that is not necessarily available at other scales: the sensors of the society are most receptive, the feedback systems and information loops most effective, the decision-making mechanisms most adaptive and competent. This is the level, too, at which people have been shown to solve social problems most harmoniously, to survive randomness and change most easily, to know the maximum number of other people with some intimacy, and to retain a sense of the self-amid-others most salubriously. It is not by accident or divine decree after all that the limited community has lasted all these many millennia.

Bill Mollison, the originator of permaculture, the conscious design of landuse and human settlements on a low-input, sustainable basis which shares many common features with bioregionalism, has also suggested that the population of a region aiming at greater self-reliance should be between 7,000 and 40,000 people. In other words, human scale is more important than landscape features and his unit, like that of Kirkpatrick Sale, would be almost indistinguishable from most social fields as defined by the circulation areas of local newspapers.

Problems over the boundaries and sizes of bioregional units have not prevented a considerable amount of useful thought and research from being carried out under the bioregional banner. For example, one of bioregionalism's important characteristics is the emphasis it places on the individual's relationship with the place in which he or she lives. Angus Soutar, who has been active in developing local currency systems in Britain, most recently in Manchester, expressed this very well in a lengthy article he contributed to *Benign Design*, the newsletter published by the British Green Party's policy group on permaculture. "The aim of bioregionalism is simply to know home" he wrote. "We aim to re-establish a sense of place, a sense of rootedness, as a counterweight to the damaging tendency of rootlessness and drift which tends to characterise our current society."<sup>17</sup>

In order to come to 'know home' he suggests that people should study some aspect of their area which interests them: "Perhaps you study local plants, may be traditional building materials and methods, or perhaps old watermill sites. Through these observations you begin to understand that a sustainable way of life is possible and that many of our ancestors achieved it or were close to it." This knowledge, in turn, leads to an understanding of the interconnectedness of people and the environment. As a result, members of the community begin to feel that their lives are part of the continuing history of their region, the ideal perspective for them to have when they help to plan the region's future:

One of [bioregionalism's] fundamental assumptions is that local control of the environment is the easiest way of regulating the use of resources. By local control, we mean control at the neighbourhood or village level. The most intimate understanding of the natural environment can only be obtained by people who are living in the midst of it, constantly observing as they go about their daily activities. That understanding can then inform their decisions and actions - whether it be to harvest, build, quarry, chop down trees and so on. In short, local people have a vested interest in resource use and the carrying capacity of their region and can ensure that they do not run down their natural resource base. An outsider will find it more difficult to

recognise the subtle patterns of interactions between people and the land. And an outsider's decisions may be swayed by ideas of exploiting resources in the short-term at the expense of sustainability.

Further information on bioregions (last updated January 2003):

Peter Berg can be reached at the Planet Drum Foundation, P.O. Box 31251, San Francisco, CA 94131, Shasta Bioregion, USA., tel 415 285 6556, fax 415 285 6563, e-mail [planetdrum@igc.org](mailto:planetdrum@igc.org). Membership of the Foundation is \$30 a year outside the US and includes its interactive magazine, *Planet Drum Pulse*. Apart from his own books, which include *Reinhabiting a Separate Country*; *A Bioregional Anthology of Northern California*, and *A Green City Program for the San Francisco Bay Area and Beyond*, Berg refers enquirers to the series of bioregional books published by New Catalyst, P.O. Box 189, Gabriola Island, British Columbia, V0R 1X0, Canada., and particularly to *Home, a Bioregional Reader*, one of the series.

In Britain, the Bioregional Development Group, BedZED Centre, Helios Road, Wallington, Surrey SM6 7BZ, tel +44 (0)20 8404 4880, fax (+)44 (0)20 8404 4893, e-mail [info@bioregional.com](mailto:info@bioregional.com), are the people to contact. The group aims to revive traditional, sustainable land-based industries through the introduction of new, efficient, appropriate scale technologies. "Though traditional land-use is of great interest to us, traditional backbreaking work is less appealing" they note in their brochure. They have produced a number of publications, (including *Bioregional Fibres*, by S. Riddlestone, 1994, 140 pages, £30) on the potential for a sustainable regional paper and textile industry based on flax and hemp, and a report looking at the prospects for reviving charcoal and coppice production in the Weald. Their 40-page report on this costs £20. They have also produced a £20,000 mobile kiln, the Viper, which makes four tonnes of charcoal worth up to £2,800 a week. (See New Scientist, 14/5/1994, for more details.) Another programme of theirs, called "Local Paper for London", enables businesses to recycle their waste office paper to the local mills and then buy it back as high quality paper or card.

The Devolve! steering group provided this information for us:

After seventy five years of campaigning, partial devolution has been won by Alba (Scotland) and Cymru (Wales). There are also 'grass roots' devolution movements in Kernow (Cornwall) and across much of England. More recently 'official' devolution conventions have arisen to match proposed government regions. Genuine political independence is impossible without economic independence but, apart from the Scottish and Welsh movements, until recently few seem to have thought much about this although the Campaign for the North published a paper calling for a regional banking system some years ago. Devolve! (10, Bartholomew Street, Leicester LE2 1FA, e-mail ) a pan-English devolution movement is now thinking seriously about this issue. It wants to encourage sustainable, decentralised regional economies. It also argues for and supports moves towards a more participatory democracy and towards cultural empowerment within England. It has now added economic devolution to its tenets. The Devolve! Web Site, [www.devolve.org](http://www.devolve.org), contains links to most regional and other movements.

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The idea that a social field consisting, perhaps, of a small country town and its hinterland should be the area within which greater economic self-reliance is sought upsets many city-dwellers. "What about communities like mine?" a friend living in London asked me when she came to visit one summer. "Your ideas may be fine for people in rural areas but you can't write off the millions of us in the cities."

Of course one can't, but big cities cannot become self-reliant and have never been so. They depend for their survival on an uninterrupted flow of fuel, raw materials and food

from outside their boundaries and only grew to their present size when fossil-fuel powered transport enabled them to gain access to increased supplies. This is not to say that they are unsustainable - there is no reason to believe that it will prove impossible to develop renewable energy powered transportation systems which will allow their inhabitants to continue to be clothed, warmed, housed and fed - but their economic function will be undermined if rural communities become more self-reliant. It is, after all, the cities which house many of the people towards the top of the industrial system's pyramid and if countrydwellers find ways to eliminate the over-burden the cities impose on them by building independent small pyramids of their own, jobs in urban areas are going to disappear altogether or move to the country. The dependence of cities on their supply areas and the lack of economic self-reliance in those supply areas are two sides of the same coin and we cannot reduce one without affecting the other.

Citydwellers can do a lot to make themselves less reliant on the world economy, of course, by manufacturing more of their imported requirements and by entering into arrangements with producers in their immediate hinterland for their essential energy, food and raw material supplies. Even so, city populations are likely to fall if the approaches outlined in this book prove successful. A better balance between city and country will emerge and rural decline and depopulation will end.. Indeed, as we will see in the final chapter, it is not only the retired and the rich who are already moving to the country in search of a better life.

## LIVING WITH LIMITS

In the past, before transport systems developed enough to allow almost everything to be brought in, the challenge facing a community was to develop a culture, a way of life, which enabled it to live for generation after generation within the confines of its own place. Some communities, even some entire civilizations, failed to do so and disappeared. Other places managed extremely well and imported surprisingly little until comparatively recently. "So little trade went on with neighbouring towns that one carrier with a donkey cart was able to do it all, and even he, it was understood, went to town weekly only if he had orders enough to make the journey worthwhile" writes Walter Rose in his book *Good Neighbours*,<sup>18</sup> an account of life in the village some thirty miles from London in which he was born in 1871. George Bourne, who is best known for *The Wheelwright's Shop*, his classic description of the business his father ran in Farnham in Surrey until 1884, also stresses how little was brought from outside in *Change in the Village*, a fascinating account of the decline of rural self-reliance first published in 1912:

It is really surprising how few were the materials, or even the finished goods, imported at that time [the 1850s]. Clothing stuffs and metals were the chief of them. Of course the grocers (not "provision merchants" then) did their small trade in sugar and coffee, and tea and spices; there was a tinware shop, an ironmonger's, a wine-merchant's; and all these were necessarily supplied from outside. But, on the other hand, no foreign meat or flour, or hay or straw or timber, found their way into the town, and comparatively few manufactured products from other parts of England. Carpenters still used the oak and ash and elm of the neighbourhood, sawn out for them by the local sawyers: the wheelwright, because iron was costly, mounted his cartwheels on huge axles fashioned by himself out of the hardest beech; the smith, shoeing horses or putting tyres on



wheels, first made the necessary nails for himself, hammering them out on his own anvil. So, to, with many other things. Boots, brushes, earthenware, butter and lard, candles, bricks - they were all of local make; cheese was brought back from Weyhill Fair in the waggons which had carried down the hops; in short, to an extent now hard to realise, the town was independent of commerce as we know it now, and looked to the farms and the forests and the claypits and the coppices of the neighbourhood for its supplies. A leisurely yet steady traffic in rural produce therefore passed along its streets, because it was the life-centre, the heart, of its own countryside .<sup>19</sup>

Now, the limits of place have gone and goods can be transported from anywhere on the globe for those with the money to pay. As a result, one of the strongest bonds holding a community together has been broken and, although the negative feedback mechanisms which warned communities to mend their ways when they had overstepped the mark still operate, they have lost their power: if the fertility of a district's soil declines, if its forests are felled, its mines exhausted, its seas fished out, the better-off know they can always buy their requirements elsewhere or, if necessary, move on. Positive feedback rules most aspects of life in the industrial system because it rewards the nations which consume the earth's resources most rapidly with incomes which enable them to purchase and destroy even more.

There is therefore a close link between local economic self-reliance and sustainability. The most commonly-accepted definition of sustainability - 'meeting the needs of the current generation without compromising the ability of future generations to meet theirs' - is too pat. We need to spell out what sustainability means in concrete terms. The fact is that living within limits and sustainability are one and the same thing and until humankind learns to live within limits again, its future and that of the planet is threatened. Theoretically it might be possible to develop a world-wide industrial culture which enabled humanity as a whole to live sustainably within the limits of the world, but I doubt it; the scale and the complexity of the task are too great, and there's very little time. Moreover, diversity rather than uniformity is desirable if we are to exploit every available ecological niche. A more practical approach is therefore for each social field to achieve ecological sustainability by and for itself. This entails it meeting at least five targets, three of which we have already established are also necessary for economic sustainability. The targets are:

- 1) Every system used in its area should be able to be continued, and every production cycle repeated, without environmental deterioration or other problems emerging in the next 1,000 years.
- 2) The population is should be stable and the district's economy should be growing or changing very slowly, if at all. The district must certainly not depend on economic growth for the maintenance of employment and prosperity.
- 3) The district must produce at least enough food and raw materials to enable its members to live simple, comfortable lives while staying within the limits of their environment and not exploiting other parts of the world.
- 4) All the energy used in the district must come from its own renewable resources.

5) To avoid being exploited or disrupted from outside, the district must have its own currency or currencies and its own banking system. Because investors' interests are rarely compatible with those of a community, capital should not be allowed to flow in or out and interest rates, if any, should be determined internally.

A sustainable world will not be one dominated by large companies and run according to the strict conditions necessary to maintain international competitiveness and speed economic growth. It will be one of small communities which run their own affairs and which, rather than trading across the globe, meet or make most of their requirements from their local resources. For it is only if communities develop cultures that enable them to live indefinitely within the limits of their own places that humankind as a whole will be able to live sustainably within the limits of the natural world.

### *Notes*

1 Reported in the *Independent on Sunday*, 7 August 1994.

2 See Graeme Shankland, *Wanted Work: A Guide to the Informal Economy* (Bootstrap Press: New York 1988), p.10

3 From Orio Giarini (ed.), *The Future of Service Employment in the Emerging Self-Service Economy* (Pergamon: Oxford 1987).

4 See Richard Wilkinson (ed.), *Class and Wealth* (Tavistock: London 1986).

5 Report by Tom McEnaney, 14 September 1994.

6 (Cambridge University Press 1991).

7 25 February 1994.

8 *Economist*, 17 September 1994.

9 *Independent on Sunday*, 5 November 1995.

10 Quoted in Martin Feldstein (ed.), *The Risk of Economic Crisis* (University of Chicago Press: Chicago 1991).

11 Quoted in the *Sunday Times*, 6 March 1994.

12 Telephone conversation.

13 I owe this idea to Gillies MacBain.

14 *The Territorial Spiral: Historical Evidence of Scale Appropriateness*, Working Paper 4, Landscape and Life: Appropriate Scales for Human Development (Cross-Disciplinary Forum, Department of Geography, University College, Dublin), November 1993.

15 (New Society Publishers: Philadelphia 1991).

16 (Secker and Warburg: London 1980).

*Short Circuit* by Richard Douthwaite: Chapter Two

17 Issue 4, autumn 1993.

18 (Cambridge University Press 1942).

19 Quoted from the edition published by Augustus M. Kelley (New York 1969), p.103

## Chapter Three

### CUTTING THE MONETARY TIE

*If people living in an area cannot trade among themselves without using money issued by outsiders, their local economy will always be at the mercy of events elsewhere. The first step for any community aiming to become more self-reliant is therefore to establish its own currency system.*

The establishment of a local money system is absolutely fundamental to greater economic self-reliance. This is because, at present, the level of trading activity in almost every part of the industrialized world is determined by the amount of money which flows in from outside. Unless that flow is adequate, even jobs which local people could do for themselves without any outside resources will be left undone. For example, I may have the materials to paint my house and a neighbour, an experienced painter who is temporarily underemployed, might be keen to do the job for me. However, if I have no national currency with which to pay him, I will not be able to use his services unless we can work out a barter arrangement, something which might be difficult as I may have nothing I am prepared to give up which he wants from me and which is roughly equivalent to the value of his labour. As a result, I may be forced to do the painting rather inexpertly myself.



The conventional solution to this problem is for me to try to earn more national currency. Individually, I might be able to do so by working for someone else in my community but if the community as a whole is to increase the number of things its members do for each other on a permanent basis, we will need to get a larger stock of pounds into circulation permanently amongst us. This can be done by increasing the amount of goods and services we sell to - and hence our reliance on - the outside world. However, quite apart from the risks to which this exposes us, the new money tends to flow out again nearly as

fast as it came in so that a big rise in external sales is likely to be needed before we can achieve a significant rise in the local national currency stock.

A better alternative is therefore for us to try to stop what national currency we are already earning outside from leaking so quickly away by making more of the goods we are buying from elsewhere for ourselves. This is a valuable strategy. However, even when we have replaced a proportion of the goods imported into our communities with those of our own, the link between the level of economic activity and the flow of money from outside remains. Only the ratio has changed. By cutting the leakage rate we have simply moved to a higher activity level for a given amount of money flowing in.

The best approach is therefore for us to make our internal transactions independent of the external money flow by using a special currency with which to carry them out. After all, the only role the national currency plays in transactions between neighbours is as a measuring stick, a scale by which the value of the work done by the man who comes to paint my house can be compared with the value of the work I do for him or for another of my neighbours. It is a way of ensuring that no-one takes out more than he or she puts in. Functional families and small, stable communities do not need to use money to measure each person's input in order to ensure that everyone pulls their weight: members just do things for each other without keeping count in the confidence that it will all balance out in the end. The community on Inishmore, one of the Aran Islands, still functions this way. In larger groupings, however, most of us seem to feel the need for some way of keeping score.

In the past all successful societies had systems under which people worked for each other and the common good without the intervention of cash. Hugh Brody writes in his well-known book on Irish rural life *Inishkillane* <sup>1</sup> that some form of mutual aid 'compounded of claims and counter-claims between farm households has prevailed in virtually every society where small farming has been the basic activity' and quotes a phrase from Isabel Emmett's study of a North Wales village: "to farm this district, a man must either have the constant daily co-operation of his fellows, or he must have a very large sum of money behind him".

In Ireland, Brody says, there is little evidence that the households involved in a mutual-aid relationship ever bothered to keep an account of each other's obligations. "It seems that the details were vague and the fact of the relationship more important than the memory for particular exchanges that occurred in it. What a household knew was the neighbours they could look to for help, and to whom they would not refuse to give help if asked themselves."

He likens the relationship to that of savers to their bank. "The giver, by giving, guaranteed that he would be the receiver in the future. In that way, the giving of surplus to friends and neighbours is not very far from the giving of surplus to the cashier in a bank. The quality of integrated society, like the legal rules of banking, guaranteed that the gift would not be forgotten and a future claim ignored."

However, as subsistence farming gave way to more specialised production for sale to exporters, it became possible to save actual cash for a rainy day rather than storing up favours with one's neighbours. Remittances from family members overseas also helped reduce the household's near-total dependence on its own resources, and consequently reduced its need to have neighbours available for back-up should those resources fail. Nevertheless, examples of mutual aid systems still exist or have ceased to operate only very recently. A friend of mine can remember neighbours coming to her father's farm in the West of Ireland each autumn until it was sold in the mid-1960s to help bring in the crops and then, after this work was done, her father, his five men and his threshing machine going off to help harvest the neighbours' crops in return. "No money changed hands, even though the contributions to the overall effort varied" she says. "It was the *meitheal*\*. The imbalance just did not matter."<sup>2</sup>

In general, however, economic relationships are now too complex and too transitory throughout most of the industrialised world to allow systems of exchanging labour without a measuring stick to survive apart from those involving relatives, close friends and immediate neighbours. Our intra-community transactions have consequently become highly dependent on the flow of cash from the outside world, a change which makes us very vulnerable should the external money supply fail to supply us with enough measuring units to do all the trading we would like with each other.

Developing an independent local supply of measuring units to facilitate local exchanges is therefore an essential step towards greater community self-reliance and several hundred communities, almost all in the English-speaking world, have already established such systems of measure. Most of these are based on one developed in the early 1980s by a Scots-born Canadian, Michael Linton, in the Comox Valley in British Columbia and use either the national currency or time as their units of measure, although other units<sup>+</sup>

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\* *meitheal*: Lit. 'working party': the Irish word for this system of mutual support and help.

<sup>+</sup> In ancient Egypt, grain was the monetary unit. The farmers would deposit their crops in government-run warehouses against receipts showing the amount, quality and date. These stores united the farmers because they protected the grain against theft, fire and flood and also saved them the cost of providing their own, or selling their crop immediately after harvest, when prices were low. The stores also enabled them to pay their rent and to buy goods simply by writing what was in effect a cheque transferring grain from their account in the store to that of someone else; people using another grain store in another part of the country could be paid with these cheques. The various stores would balance their claims against each other, just as banks do today, and the grain itself would only be moved if there was a net flow of cheques from one town to another and the grain was actually needed there for consumption. In other words, the weight of grain was merely a basis for accounting and the grain itself was not a standard barter good. The tobacco stores in the New England operated in much the same manner and enabled the crop to serve as legal tender in Virginia for almost two hundred years and in Maryland for a century and a half. As J.K. Galbraith points out in *Money: Whence it Came, Where it Went* (Penguin 1976), this was longer than the gold standard managed to survive. An important feature of both grain and tobacco as currencies was that whoever held a deposit was not only charged for keeping it in the warehouse-bank but knew that it would deteriorate there and consequently ate, smoked or spent it as soon as reasonably possible. As a result, money was not hoarded but circulated well.

have been proposed such as cords of firewood (in certain areas of Canada and the US more or less anyone can go out and cut wood, thus turning their time into a readily-measured amount of winter heat) or litres of milk.

Most of the Linton-inspired LETS (local exchange trading system)<sup>4</sup> issue their members with special cheque books and operate their own computer-based cheque clearing system to record the payments in and out of each individual's account. In the system to which I belong in Westport in Ireland, we each collect up all the cheques we have received on the last Thursday of each month and post them off to the member who operates the computer system. Our statements of account are available for us by the following Thursday. It's simple and works well.

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## PANEL

Money, according to Michael Linton, the developer and populariser of the most widely-used local currency system LETS (an acronym for "local exchange trading system", although some people substitute "employment or "enterprise" for "exchange"), is "the unreal stuff that we swap for real stuff" and, in his well-practised public address, he goes on to highlight three major differences between national currencies and their local cousins<sup>3</sup>. The first is that a national currency is acceptable anywhere - in some cases all over the world - while a local currency can only be used in a very limited geographical area. This restricted acceptability is a plus rather than a minus factor, he explains, because the smaller the system, the sooner any spending power introduced to it by a member is likely to find its way back to him or her in the form of increased demand for their goods and services.

"If you spend money in the national system, it has gone. The individual's spending power has no effect on the overall level of demand and on the ability of other people to trade with him. On the other hand, in a local currency system, if you buy from a fellow-member, his spending power is increased and, directly or indirectly, the extra purchases he makes are likely to increase demand for whatever you are offering. The smaller the system, the sooner your money comes back. Spending money in a small local currency system is like eating bread in a hammock and trying to brush away the crumbs: they just keep coming back."

The second key difference is that national currency is always scarce because its supply is deliberately restricted for fear of inflation whereas, since a local currency is created by people doing things for one another, its supply is always adequate for their needs. All LET schemes create money by allowing, indeed encouraging, their members to go into interest-free debt because it is only if one member runs up a deficit by buying another member's goods or services that the other member can move into credit. At any time and in every LET system, the total of all the accounts in credit will equal the amount the

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rest are in debit and, if everyone trades so as to bring their account back to zero, all the purchasing power will disappear. Some systems such as the first attempt to start a LETS in Totnes, Devon, failed because members were so reluctant to run overdrafts that they were never able to trade at all. "If you are prepared to do something other people want in the national system the money will not necessarily be there for them to hire you but, with LETS, it will" Linton says.

The third difference is that as the national currency comes from outside the community and is in short supply, it can be used by those with a lot of it to gain power over those without. A local currency, on the other hand, can never be an instrument of power and domination because no-one is ever desperate to get it: they can simply make their own. Consequently, although a person may have a lot of local units in his account he cannot avoid having to persuade a heavily-indebted member to work for him because, as no interest is payable on overdrafts, the only pressure the indebted member will feel to do so will stem from his sense of obligation to the other members of the group to return the equivalent of the goods and services he has had from the system within a reasonable time. If he dislikes the other member, this might well over-ride his wish to fulfil his commitment to the group as a whole. In LETS, it is the local-units rich member who is in the exposed situation rather than the indebted one.

Linton encourages LET systems not to place formal limits on the extent to which members can overdraw, suggesting that they should rely on group pressures and gentle advice from an active co-ordinator to prevent members from becoming so heavily indebted that they despair of ever meeting their obligations and cease to participate. Although many schemes have not taken this advice and have imposed limits, it is certainly possible for a system to operate satisfactorily without them because if a member withdraws leaving a badly overdrawn account behind him, no-one in the system suffers unless a crisis of confidence causes the system to break down. All that has been lost is the goods and services which the missing member would have supplied to the group as a whole if he had discharged his obligations before his departure and since those goods and services can be supplied just as well by a new member as by the old one, so long as the system keeps recruiting and trading, nothing is lost. Every member who supplied the defaulter has been paid.

Provided they are kept small enough, LET systems can be nicely self-regulating. In many places, members get a bank-account-style statement of their account each month, showing the cheques they have written and lodged. They also get a sheet showing the state of every other member's account so that anyone who feels that another member is drawing rather too much from the system can decline to do business with them. In other words, each member has the power of sanction over every other member's descent into the red. However, once the group gets too large this type of control becomes less effective. Because of this, and the benefit of having one's own LETS spending come back quickly in demand for one's own goods and services, many people think that five hundred might be about the maximum desirable size for a LET system.

Linton's views on size can be confusing. On the one hand his seminars stress the advantages of small scale and present the vision of a future in which towns will have several systems, some of which will operate in particular districts areas while others will be based on churches, sports clubs and other organisations and draw their members from a wider area. Most people, he thinks, would be members of more than one system.



On the other hand, the last time I met him he was hoping to arrange for his consultancy company, Landsman, to undertake the setting up of a 3-million member system in Sydney, Australia, on a profit-sharing basis. When this project failed to get beyond the proposal stage, he tried to start a massive system in Manchester and made himself unpopular with some LETS enthusiasts in the area, some of whom disliked the fact that a considerable amount of national currency was being invested in the project on which it was hoped that there would be a commercial return. However Linton insists there is no inconsistency because all sizes of systems have their role 'like gears on a bike'.

The biggest LET system in the world at present, and the one which Linton says is the best he knows, is that operating in Katoomba and other small towns strung along the road and the railway line to Bathurst as it passes through the Blue Mountains about forty miles from Sydney. It was started in February 1991 and by the end of 1993 it had 1,000 accounts representing perhaps 1,200 people as not all the accounts were individual ones. About 70% of the accounts were classified as active, having traded more than 100 Ecos (an Eco is regarded as equivalent to an Australian dollar) since they were opened. "In a typical month we process more than 800 transactions worth more than 40,000 Ecos" Peter Furnell, one of the early members, told me.

So large has the number of accounts become, in fact, that in mid-1993 the decision was made to post each member's statement out quarterly rather than monthly. "That seems often enough for most people" Furnell says, "and it enables a new issue of Green Pages, the directory of all the services our members offer, to be posted in the envelope as well." To supplement the directory, the group also publishes a weekly bulletin, a single A4 sheet printed on both sides which lists goods which members have for sale and news about the system. This is distributed to pick-up points in shops and pubs throughout the towns. "For a lot of things, you just can't wait until a new edition of the directory comes out" Furnell says.

The system's rapid growth - after its first nine months it had 120 accounts so roughly 400 people must have joined in both 1992 and 1993 - has meant that it has become much less personal. "People no longer feel that they know everybody or that they could do so. That's a loss. They now say 'LETS should do this' or 'LETS should do that' rather than 'We should do it'" Furnell comments. There are no signs that the system has suffered in other ways, though. In particular, no-one has abused the system by running up large debits and putting nothing back. As at September 1st, 1993, 2% of the accounts were overdrawn by more than 1,000 Ecos, but all of the holders had traded more than 2000 Ecos during the system's life. "We do have a £2000 limit on overdrafts but it's not enforced very strictly" Furnell says.

To overcome the increasing anonymity of the system, Kaiya Seaton, the co-ordinator of the Development Group, says that they intend to turn it into a 'multi-LETS' by encouraging the formation of sub-groups in each of the towns they cover, with each group issuing its own newsletters and trading as far as possible amongst themselves. She adds that, when new systems have set up in neighbouring areas and suggested ways in which their members can trade with those in the Katoomba system, she has discouraged them from doing so: "I told them: 'Don't trade with our system as it will cause you to lose your own.'"

### *2002 Update by Caroline Whyte*

The Katoomba LETS system, officially known as Blue Mountain LETS or BMLETS, experienced a "golden" time around 1996-97. Membership peaked at 1000+ people, and the system was administered by an elected membership committee which had a central office to handle all transactions.

Some problems began to arise in 1997 when BMLETS incorporated as a legal entity. Michael De-Campo, who has been involved with the system from the early days, told me in an e-mail in August 2002 that the incorporation took place "in order to gain some government grants, get tax sorted out and have Public Liability Insurance available". The flip side of incorporation was that the system now needed to have official and exact record-keeping, monthly meetings, and additional funding to function as an incorporated entity.

The extra funding was not a problem at first as there were so many members, but became one when membership began to decline after a couple of years. De-Campo lists a number of reasons for this decline, among which were: the fact that the population of the Blue Mountains area tends to be rather transient, with people moving away after a year or two, the lack of a feedback or mediation system for dealing with dishonest or shoddy trading, and the difficulty caused by volunteers' having to "hold it all together", ie keep complicated records, recruit new members and hold events.

Another problem was caused by the need for office space. With incorporation, there was a need for a larger office than previously, with more equipment. After memberships began to decline, it became impossible to maintain this expense and the office was moved into a private home. DeCampo writes that "this was to be the first of about 5 different moves..as members could only tolerate having an office in their house for so long...usually about 6 months or so. However these moves meant that access to the local office was becoming more difficult for people who had no transport." Memberships declined still more. The consequent decline in funding meant that the newsletter had to be left off at various locations rather than posted, and this meant that fewer members received it as many people did not get around to picking it up.

Another problem then arose. De-Campo writes that "there emerged an imbalance between those that held a large negative eco account (up to 3,000 ecos...a limit set earlier on) and those who had a large positive eco account (many of whom were local businesses trading with a 10% eco component...as well as ordinary members). The members with the positive eco account complained that they could not spend their hard earned ecos! Membership dwindled again as a consequence."

"By mid 2001 (he writes), the annual meeting came up...not a single person put forward for any of the positions. Due to the laws of incorporation, this meant that BMLETS had to de-incorporate and cease all business/trading. The members who were present at this

"crisis" meeting voted to de-incorporate and then followed on with what other possibilities could emerge. A handful (5 or 6) of die hard members continued to meet for about 6 months."

Since then, he writes, there has not been much happening. "Some of the younger, keener ex-members have also left the mountains. Many of the longer term members have moved onto other fulfilling projects. September 11 has shattered many."

He believes that many of the record-keeping problems could have been alleviated by the adoption of a zero-balance-account system, such as is described in the Time Dollars website, and also by the use of book-keeping software. After de-incorporation, some people had the idea of simply keeping their own individual records of transactions, but this hasn't happened in practice so far. De-Campo comments "I think people feel safe in a kind of system, although there are still a few ex-members who help each other out, out of friendship really".

However, with the November 2000 designation of the greater area of the Blue Mountains as a World Heritage listed place, the local government has set up an agenda for the Blue Mountains to become fully sustainable within the next 25 years. De-Campo writes "there are many opportunities here that will emerge, I feel, in the next 2 or 3 years...so keep your fingers crossed and wish us good luck!"

He adds that "the LETS system did work fantastically here...my feeling is that for something to really last and take root in a place, it needs to emerge from the heart / core of the community and be driven by everyone at all levels. Then you can be sure that that kind of dynamism sustains itself as well as the "system" it exists for. It is still working well in some smaller rural communities; see [www.lets.org.au](http://www.lets.org.au)."

Michael Linton is currently focusing on the development of a type of LETS called Community Way. He describes Community Way as being intended to provide a gentle introduction to LETS for communities that are interested in experimenting with local currencies but don't yet want to plunge into development of a full-blown LETS. Community Way has three groups of participants: local businesses, community groups, and ordinary people. Signed-up businesses make donations in local money to community groups of their choice, who thereby acquire badly-needed funding. The community groups can then use the money in a variety of ways: they can spend it in the signed-up businesses (who would undertake to accept local currency for a certain percentage of transactions); they can use the money to top up wages of employees; or they can exchange the money for Canadian dollars with ordinary people. Ordinary people would have an incentive to exchange money because they would know that by doing so, they are helping the community groups, and they would have the added benefit of being able to spend the local money in the signed-up businesses.

The websites at Community Way and Wildfire Community Currency contain information about Community Way projects, as well as general information about LETS. The latter site includes an array of audiovisual material designed to provide a clear introduction to Community Way.

The websites at LETSsystems and Open Money also contain information about Michael Linton's LETSsystems. The [www.j-lets.net](http://www.j-lets.net) website contains information about Open Money (a LETS project) in Japan.

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The units in which we write out cheques are not Irish pounds but Reeks ( after The Reek, the local name for a nearby holy mountain, Croagh Patrick) and every six months or so we bring out a new issue of a directory listing the goods and services which members are prepared to supply for them. Of course, members need to know what is going on more often than that and so, each month, along with their statements, everyone receives a set of supplementary pages for the directory listing new entrants' skills and a newsheet reporting what's going on. It's a lot of work preparing this material but those who do it find it enjoyable and get paid in Reeks for their efforts.

When we were planning the Westport system we were worried that settling all our transactions by cheque could prove cumbersome because each cheque would take a member's time (for which he or she would have to be paid in Reeks) to process through the computer system, an elaborate procedure just to buy a pound of carrots. And, as people without conventional bank accounts are reluctant to accept payment in national-currency cheques, we also felt that people outside our system would be reluctant to be paid in our cheques even though they would be able to spend them with members by endorsing them on the back . This, we thought, would make the system undesirably exclusive because there would be no way for waverers to use it casually before committing themselves to becoming members and paying the entrance fee. We therefore decided to issue Reeks tokens for use in small transactions and for paying non-members who could spend them at the stall we operate once a week on market day or in the cafès and shops which have joined our system.

Because other things got greater priority, it was almost 18 months after trading began that the tokens appeared. They had been designed by a member, scanned into a computer and run off on a laser printer ten to an A4 sheet. Each sheet had then been laminated between clear plastic, guillotined, and the individual tokens validated to make them hard to forge with an embossing stamp bearing the words 'Meitheal na Mart' the name of the co-operative society we had registered to run our LET system. Each of the five values - they are issued in denominations of 1, 5, 10, 20 and 50 Reeks. - had been printed on a different coloured paper and the tokens were the right size to be kept in a credit-card wallet. How did they work? Well, physically they were excellent. Tests showed that they could be washed in a jeans pocket twenty times without losing legibility. But practically, for all the

good they were doing six months after they came out, we might as well not have bothered. "They've never really been promoted but the number of people using them is slowly increasing " commented Ben Ryan, who runs the system's market stall and issues tokens in exchange for a cheque to members who want them. "The thing is, they are not really necessary as members can buy from the stall without using cheques just by signing for their purchases in the book. But I did pay two non-members with them and they joined afterwards"

Besides experimenting with tokens, Westport is slightly unusual in that the Reek is a time-based unit which represents a minute of average working time. We use this non-national-currency-based measuring stick because we do not want prices within the system to be automatically identical with those outside and also because we do not want the tax and social welfare authorities to be able to treat local currency earnings as if they were cash.

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PANEL: 2003 update on the Westport LETS, by Richard Douthwaite

In 2003, ten years after it began, the Westport LETS system had withered away to just two members, the one trading with the other. Almost every other Irish system had either disappeared entirely or was in a similar state. This was due to two things. One was a boom in the Irish economy that made it much easier for people to find work and meet their needs without having to resort to 'funny money'.

Two serious design faults common to all LETS systems are the other reason. One fault is easy to explain. It is that a tremendous amount of work is required to run a LETS system because every transaction, no matter how small, has to be recorded twice, once as a debit on the buyer's account, once as a credit on the vendor's. A simpler payment method is needed and it is a pity that the tokens introduced by Westport LETS never went into general use. It is significant that the Argentinean LETS systems quickly abandoned the use of cheques and moved over to paper notes called credits when the collapse of that country's mainstream economy meant that thousands of people wanted to become LETS members and trade.

The other fault is more serious and less easy to correct. It is that LETS currency is created in the same way as conventional currency - by someone going into debt - but that, unlike conventional currency, LETS systems have no effective way of ensuring that debts are ever repaid. Even the term 'debt' is avoided., with the much more positive sounding phrase 'on commitment' being used instead. Most people who borrow conventional money repay their debts as quickly as possible to minimise the interest charges but as LETS systems don't charge interest, their members are not under this pressure. Instead, the standard LETS design is based on the assumption that, if the state of everyone's account is made public, moral pressure from other members of the system will be enough to force indebted participants to honour the trust placed in them and get back into credit in a reasonable time. Unfortunately, experience has shown that this does not work well even in small systems and becomes totally inadequate when

membership numbers grow and the average member is known personally by a declining proportion of the other participants.

When a new LETS starts, the system is small and the group pressure to get out of debt fairly quickly works reasonably well, especially as most members know each other and are enthusiastic about the trading network they are starting. A honeymoon period of 18 months or two years results. However, as time goes by, two types of member become apparent. One type regards the LETS currency in the same way as conventional money. Their gung-ho attitude is: "Great. Let's earn and spend as much of this new money as we can" And they do. They pour enormous energy into the system, working for, or selling to, everyone they can and spending their earnings with panache. The second group, however, is much less energetic. Sure, they like having keen people coming to do things for them, but actually earning the LETS units to pay the system back, well, that's not so good. Working off their growing debts would mean inconveniencing themselves and, as there is insufficient pressure from anyone in the system to force them to do so, they increasingly don't. And so the enthusiastic members inevitably find that they have large credit balances in their accounts that they would like to spend if only they could find anything desirable to use them on while the more laid-back characters who should be meeting the enthusiasts' demands to discharge their heavy debts are not sufficiently motivated to do so. Accordingly, with more LETS units than they know what to do with, the one-time enthusiasts cease to trade. This deprives the system of most of the energy that was driving it along. Consequently, as they are set up at present without any adequate means of ensuring that debts are honoured, LETS operate as near-perfect mechanisms for eliminating their most active and valuable members and devaluing their own currencies.

What few LETS members recognise is that, if their system is to work fairly and well, each accountholder should spend roughly as many LETS unit-days in credit as they do in deficit and vice versa. Such a balance would ensure that everyone only took out of the system as much as they contributed in both value and time terms. With a conventional bank account, anyone not maintaining such a balance pays interest on the shortfall but no LETS system as far as I am aware has a computer programme that allows its members to know how many LETS unit-days they should be in debit or credit to ensure that they have no net debit or credit balance over the course of, say, a year. Moreover, even if a system had the software to make this information available, it would still almost certainly lack a mechanism to force its more debt-prone members into line especially as the idea of forcing members to do anything is against the LETS ethos. Many people join systems attracted by the idea that they rather than a bank manager or a committee will decide how much debt to take on and when to repay it, and once a system has started on this basis, if the experience in Westport is any guide, it is almost impossible to get its members to agree to its reform.

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#### PANEL: HOW LETS EARNINGS ARE TREATED FOR TAX

One of the first questions many people ask about local currency systems is how they are treated for tax. For members, however, the question rarely arises because either their national currency incomes are insufficient to place them in the tax net in the first place

or, if they are income tax-payers, because they do so little of any one thing within the system that the tax authorities are happy to ignore the tiny amounts of imputed income involved. "There's nothing like a detailed account of dog-walking or granny-sitting to convince and inspector that further investigation is likely to be less than cost-effective" says Angus Soutar, who has advised British LET systems on tax and worked with Michael Linton to set up Greater Manchester LETS.

As a result, only those members who do part of their normal business or profession through a LET system are liable for income tax on their local currency earnings. For example, if a solicitor agrees to accept payment of his fees in the local unit, he or she would have to declare these earnings for tax at the national currency value they placed on them. Even in a system which nominally tied its unit to the national currency, this would not necessarily be one-for-one but systems using some other basis of valuation obviously have an advantage when it comes to convincing a tax inspector that this should not be the case.

"Two of our members, both alternative health care practitioners, have submitted tax returns listing their LETS earnings" Val Oldaker wrote in the LETSlink newsletter<sup>5</sup>. She belongs to the Newbury system whose NewBerry (NB) is a time-based unit with no fixed parity with Sterling. "In one case, the inspector took the view that since the standard, listed, rate for the treatment was £20, this meant that the value of the 25NB currency received was £20. In fact, one of the reasons that the alternative health people are so keen on LETS is that they are primarily interested in health, not money, and if a patient who needs help doesn't have any money, they will often be treated for nothing, or very little. If such a patient joins LETS, at least the practitioner gets something. So we managed to convince the inspector that the choice in treating a LETS patient was not between 25NB and £20 but 25NB and nothing. He said that 'as long as you can prove that the practitioner has treated the patient for little or nothing, then we can use this figure as an exchange rate.'"

The other practitioner produced a 25NB cheque which the inspector was claiming was worth £20, endorsed it on the back and handed it over to his receptionist in payment for an hour's telephone answering. "How can you explain the fact this cheque, by your calculation, has devalued from £20 to £3.50?" the practitioner asked. "The officer tied himself in knots trying to be fair, by realising that the value of the NewBerry is dependent on what it is spent on, rather than what is earned. So we'd be taxing spending, not earnings but the Inland Revenue has no way of doing that" Oldaker commented.

The best way out of this valuation problem would obviously be for the revenue authorities to agree to accept any income tax due on a local currency income in the unit in which it was earned but there seems little chance of this and, throughout the world, they insist on payment in the national currency. However, many members of LET systems are equally insistent that if a transaction is completely in the local unit, that unit should also be used to settle any tax liability incurred because a system designed to enable people to manage with less official money is obviously weakened if users are obliged to earn national currency to make their alternative arrangements work.

A lot is at stake here because, if governments accepted locally-produced money in payment of taxes, it would give that money enormous credibility. Moreover, since this revenue could only be spent in the area from which it came among members of the

group which generated it, the area would benefit twice: first in terms of the jobs created when the tax was spent and, second, as a result of whatever the spending achieved. The payment of taxes in local units could suit local councils too, since it would give them an additional source of income independent of central government, something they badly need. But national governments are going to be very unhappy to see even a trivial part of their financial power slip away.

Sooner or later, someone who has sent his tax inspector a cheque drawn on his LETS account and refused to replace it with one in national currency will court imprisonment on this issue. In Australia, several systems have opened accounts for the tax authorities and substantial sums have accumulated in them, which the government has refused to touch. In one case, after waiting two years for the their local currency taxes to be used, LET system members spent them themselves on the projects they felt were of most benefit to their area, a wonderful first for true local democracy.

The other major issue dividing local currency earners and the taxman involves the determination of just how much of a particular activity they can do before they are judged to be carrying on a business and therefore liable for tax. So far there is no definitive answer. John Bolger, a former tax inspector who now has his own practice as an accountant and tax consultant in Kilkenny, where he played a leading role in setting up a LET system, puts it this way <sup>6</sup>

: "The Revenue is not interested in someone who is doing very small bits and pieces. Whether someone is carrying on a business is a matter of degree and a pragmatic approach must be taken. However, if the person is not carrying on a business, whatever he or she receives is not taxable irrespective of whether local units or national currency is taken in payment."

Frank Brennan, perhaps the leading Irish tax consultant, agrees <sup>7</sup>: "Nothing in the LET system would bring a person within the tax net who might not otherwise be there. If, for instance, I give someone a lift in my car and even though they might give me a gratuity, that will not constitute taxable income in my hands since I am not in the business of providing taxi services. The position is obviously different for somebody who is in that line of business."

An identical position has been taken by the Inland Revenue in Britain: anything earned from one's normal line of business is taxable, whatever the currency used in payment. Other activities constitute 'social favours' and are tax exempt. In both countries, therefore, there is a strong incentive for anyone paying income tax to forget their day job and do other things entirely when they join a LET system.

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We feel that a LET scheme which claims that its unit is of equal value to the pound or the dollar is deluding itself because everyone would always prefer to take payment in the national currency instead of the local one if they were given the option since the latter can be spent in only a limited number of ways among a limited group of people whereas the former can purchase almost anything anywhere. In view of this, it seems best to make our local unit as different from the Irish pound as possible.



Both time- and national-currency-based units work well as measuring sticks. However, on balance, I feel that non-monetary units are preferable if only because they makes it more difficult for people to quote prices in a mixture of national and local currencies - something which LETS members quite reasonably wish to do since they cannot live by earning local units alone. However, since the need to use national currency alongside LETS units undermines the object of establishing a LETS in the first place, it is also quite reasonable to make rules which restrict it. The system in Katoomba, New South Wales, for example. says that members cannot use its directory to advertise anything if more than half the price has to be paid in Australian dollars.

Groups should be constantly striving to eliminate national currency supplements. If a mechanic working within a LET system has to buy parts to mend a car, he will naturally pass whatever they cost in national currency cost on. Ideally, however, his charge for his time should be billed in the local unit alone. True, because of his overheads, he will need to cover, say, 30% of his labour costs in national currency but he does not have to collect that 30% on every job and he can charge LETS members 100% local currency on work he does for them because non-members will be paying 100% cash. All he has to do is to balance the amounts of each currency he gets over a month, not on each transaction. The fact is that every LETS member incurs some national currency cost on every transaction they do, even if it is only that of making a 'phone call . However, so long as everyone's national currency costs are more or less the same, none of us will be any the worse off if we don't charge each other for them and we won't need to have national currency moving round between us to keep our local currency system running.

Indeed, it is sometimes possible to charge 100% local currency prices even when one has had to cover considerable national currency costs. During Westport LETS first summer, a woman who baked wholemeal bread every Thursday for sale on the stall we run in the market place found that she could charge all-Reek prices to members because sales to non-members, many of them tourists, provided the national currency to meet the costs of her gas and flour. During the autumn, however, two other members began baking bread after the first had started a drama course in Dublin, and found that, as the tourists had gone, so few cash sales were being made each week that their national currency costs were no longer being met. Unfortunately, but understandably, they began charging mixed prices, asking members to pay half of the cost of a loaf in Irish pounds, the rest in Reeks. Sales fell off alarmingly, dropping from 16 loaves a week to two, cutting their net earnings from baking to the point at which it was not worth carrying on. "They used to spend all their Reek earnings at the stall anyway buying eggs and cheese" a committee member said when we discussed this. "Now they've got to buy those things for cash, so they are not saving themselves any national currency by charging the mixed prices and they've got fewer Reeks to spend in the group." Today, three people are baking for the stall, all charging all-Reek prices on sales to members.

Apart from tax, the other big advantage of not fixing the value of a system's unit in terms of the national currency is that it makes it easier for LETS prices to differ from those quoted in pounds or dollars. Prices in the Westport system began to move away from straight conversions from the national currency after three months - and not in the way

one might expect since, for the most part, they went down. This was because some members found that their services were not being used sufficiently often to pay off the overdrafts they were running up on their accounts so they cut their rates to get more business. Others found when the first directory appeared that their rates were seriously undercut by other members and brought them down when it was reprinted. A third group cut Reeks prices to give the system a boost.

Some rates moved both down and up. For example, a builder adopted the entirely reasonable view that if someone wanted to hire him, his time had to be worth at least as much to the other member as that member was listing as an hourly rate in the directory. He therefore began adjusting his charges to match the other member. "If they could do the job themselves they wouldn't bother to hire me so I must be worth at least as much as they are" he commented.

The Westport core group's policy is not to recognise or support any exchange rate between the local unit and the national currency and to discourage members from selling one to buy the other. Members are required to quote a Reeks price for goods sold on the market stall but are free to quote a cash price for the same items to enable them to be sold to non-members. However, it is up to them to set both prices and the exchange rate therefore varies from member to member. Some suppliers of goods in short supply - free-range eggs, for example - refuse to set a cash price at all because they want them to be sold solely to other members in order to develop the system.

Michael Linton's view on the exchangeability of currencies is quite different and he sees nothing wrong in people with a good cash income but insufficient time to offer services through the system spending local units they don't have in, say, a restaurant, and then balancing their accounts by buying units from someone with plenty of time and an inadequate national currency income. "That way, everyone benefits. The people with a high income and no time support the LET system and the member with plenty of time and no cash gets the cash income he needs" he argues.

The Westport view, however, is that this approach weakens a LET system by underlining the inferiority of the local unit and that it is much better for people with cash but insufficient time to balance their LETS accounts by finding something they no longer want they can sell through the system, particularly as so very few actual goods are available through many LET systems that they amount to little more than diversified baby-sitting circles. In Westport, we make a real effort to ensure that an attractive range of goods is always on offer: this was one of the reasons we opened the stall. If someone offers, say, a bicycle for Reeks to balance their account, that's really good because it widens members' range of options and thus strengthens our currency.

Another of Linton's ideas we have decided not to adopt is his strongly-held belief that systems should not set limits on the amount by which members can overdraw their accounts. Linton thinks that, if the debit or credit balance of every member's account is circulated regularly, no-one's overdraft will get out of hand because if other members see that he or she is taking too much out of the system, they will refuse to deal with them

until they have brought their indebtedness down. He adds that members with big overdrafts are in a poor position to refuse offers of local-currency employment because of the group pressure to cut their debts.

All this is true, and the Westport system publishes members' account balances by pinning them up on the stall. After all, all Reek overdrafts are debts, not to the system itself as would be the case with an overdraft at a bank, but to every other member, so it is right that members should know what they are. However, we felt that we would all be happier if we issued some guidance on what was a reasonable deficit to run and suggest to new members that they limit themselves to an overdraft of 4000Rs (approx £200) for their first month and then keep below whatever figure represents three months' average Reek earnings for them. What everyone fears is that some members might get themselves so deeply in debt that they will feel unable to pay off their obligations within a reasonable time and withdraw from the system, damaging both it and themselves.

Other systems have a similar guidelines, even those which claim not to do so. For example, Stroud LETS in Gloucestershire, one of the most successful in England, says that if it imposed credit limits it would destroy the atmosphere of mutual trust and empowerment which it is trying to build up. However, though it may not set explicit limits, it does have implicit ones and whenever an account seems to the co-ordinator, Sandra Bruce, to be getting its holder into trouble, she contacts the person involved, frequently with an offer of work, and helps them come back into line. Perhaps the only system genuinely not to have had limits might have been Michael Linton's own in Comox Valley. When this slowed almost to a standstill for several years for reasons we will discuss shortly, Linton's own account was the most seriously extended - his commitment<sup>\*</sup> was the equivalent of \$17,000 out of a total of \$60,000 outstanding in a system which had turned over \$300,000 - and outsiders have criticised him for using the system to get goods and services for his own benefit without putting enough back. Linton, however, rejects their charge: "During those three years there was no appropriate way within the system to pay me for my more than full-time work. My function was design, development, promotion, publication and training and it was related to longer-term issues, and required wider resources than the local network could possibly provide. Since I couldn't be paid I ran up my own commitment" he comments<sup>8</sup>.

Linton acknowledges that this probably damaged the Comox Valley system. "Any non-providing negative can tend to detract from system performance and certainly, in this instance, mine did. However, it can also stimulate. And equally, mine did. We worked that out beforehand and took the risk with, in my view, considerable success. The system operated with these biases for almost half its first successful period."

An overdraft on a LET system's own account is often a substantial 'non-providing negative' and thus a source of danger in itself. It can arise because once a LETS is

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<sup>\*</sup> Linton dislikes using words like 'debt' and 'overdraft' in relation to LETS systems, preferring to refer to a member's obligation to provide goods and services of equivalent value to those they have received as their 'commitment'.

running there is no need for the committee or anyone else who works for it to do so unpaid since they can always be given local units to recompense them for whatever they do. Moreover, committees often feel that membership subscriptions do not have to be adjusted to cover all the setting-up costs while the system is going through its development phase. Why should early members have to bear the entire cost of something which, everyone hopes, will benefit a far greater number of people for many years to come? And so, the deficit on their system's account is allowed to mount up steadily. The question is: How far can it go without damaging or endangering the system? And the answer? Nobody knows.

Up to a point, a deficit in the system's account is good because it means that the average balance in individual members' accounts is positive and this encourages them to spend. Nobody likes incurring debts they can avoid or defer, even in a LET system. In Westport, we even considered giving new members several hundred Reeks the moment they signed up in order to get them trading in the system immediately. Instead, we decided it would be more effective to subsidise the stall's running costs until its turnover had grown enough to pay the members staffing it an adequate amount for their time. Everybody in the system benefits from having the stall because of the goods it offers and the meeting place it provides. On top of this, it is a good advertisement for the system and most new members are recruited through it.

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#### PANEL: PAPER CURRENCY REPLACES LETS IN AMERICA.

The most successful local currency system in the US was started as a reaction to the Gulf War in 1991. "Our country was just being dragged along by the huge armaments manufacturers and the need for oil to fuel the automobile" Paul Glover, the man responsible, says. "I felt that something had to be done to build a local economy which would enable people to supplant these forces."

Paul, a journalist, graphic designer, ecological urban planner and Vietnam draft resister who once walked from coast to coast across America along back roads, had been back home in Ithaca, a city of 30,000 people and the site of Cornell University in upper New York State, for several years before he started the system. In fact, he had already helped establish a LETS in the city, but this, having traded for ten months and achieved about sixty members, ceased operations when the Community Self-Reliance Center, the organisation which had set it up and operated its computer system, closed down in 1988. The experience convinced Glover that a much simpler system was needed - specifically, one in which the currency unit actually passed from hand to hand without the necessity for computer records. It was not just the high level of administrative input connected with a LETS which drove him to this conclusion: "Paper currency is more readily used for smaller transactions. Our local Farmers' Market could not be bothered to report dozens of small LETS transactions on market days. Now we're using paper money we find it moves faster than LETS credits, involves more people spontaneously and is more fun" he says.

A friend of Glover's, Patrice Jennings, had analysed the LETS experiment for her Master's thesis at Goddard College and together they devised the Ithaca HOURS scheme to avoid the worst snags her research had revealed. "There's no law against issuing a hand-to-hand currency if it doesn't look like US dollars, and it gets around all the record-keeping problems that we had encountered with LETS" Glover says. "I got about ninety people to back me by paying a minimum of a dollar to advertise whatever goods and services they were prepared to sell for HOURS in a newspaper I told them I was going to bring out. I don't think many of them really thought that very much was going to happen. In return for their money, I paid everyone four Ithaca HOURS so that they had some currency to use when trading began." Each HOUR represented a typical hour's work and had no exact monetary value at this stage in the system's development.

Glover then spent \$300 to print 5,000 copies of an 8-page tabloid newspaper which contained 260 advertisements and gave details on how the system would operate. He distributed the paper, *Ithaca Money*, throughout the city in November 1991. "One of the problems with LETS is that the lists of members and the goods and services they want or are offering are distributed only to members: this means that only limited circle of people get the chance to participate. You've really got to get information about the system into the hands of the whole community, not just part of it. A newspaper seemed to me to be the best way to keep everyone informed" he says. "Moreover, like other newspaper editors I'm not responsible for supplying the tax authorities with information about the business affairs of my advertisers. If I was co-ordinator of a LET system I would have to do so as in the US barter transactions are taxable<sup>9</sup>. We are not a tax avoidance scheme and I announce in every issue of the paper that it is each participant's responsibility to report to the IRS the dollar value of any professional trades made."

Trading began slowly once the paper appeared but grew month by month. By late 1993 when I visited Ithaca, thirteen editions had been published and 4,300 HOURS worth \$43,000 were in circulation, the national-currency value of an HOUR having been fixed at \$10, the average level of wages and salaries in the Ithaca area. "Initially, we just said to people 'Value them at whatever you think an hour's work is worth' and different businesses used different rates, which varied from \$6 to \$12.50. Eventually, though, we decided to standardise on \$10. It makes life easier" Glover told me. "This does not mean, though, that offering an HOUR will buy you 60 minutes of every member's labour. We haven't felt it necessary to require professional people accept the same rate of pay as other types of worker. It's seemed more important to try to get the lower rates up but we've seen professionals cutting their rates in the spirit of equal pay. Most participants are getting far more spending power per hour when they are paid in HOURS than they do when paid in cash, so we can more readily afford professional services.

"HOURS are real money. They are backed by real people whereas Federal money is backed by nothing at all, unless you count four trillion dollars of national debt. If critics tell me HOURS are just Monopoly money, I point out that, on the contrary, they are anti-monopoly money because they would never be accepted by the huge corporations" he continued, proud that when a thief robbed a restaurant which accepted HOURS he went out of his way to take the HOURS as well as the regular cash. "They were kept separately. He didn't just pick them up with the rest of the money. That really demonstrates the extent to which they've been accepted. HOURS have also been used as the pot in a game of poker and because my landlord will take my rent in HOURS, I

can pay for about 95% of what I need with them" he said. Glover earned 447 HOURS in 1993 from selling display advertisements in *Ithaca Money*.

Almost every conceivable trade and profession offers its services through the newspaper and the list of 250 businesses which accept HOURS is impressive. At the end of 1995, it included two locally-owned supermarkets, six delicatessens, thirty of the stalls in Ithaca's weekly farmers' market, and several restaurants on at least one night a week. The city cinema was not only taking them but giving change in Federal notes and coins, while the Ithaca credit union, although not maintaining HOURS accounts, would take them for loan repayments and other fees. "When our printer started keeping the HOURS printing plates in his safe, I knew they were being taken seriously" Glover comments. "He now takes part-payment in HOURS for each batch of HOURS he has printed himself."

What about the possibility of forgery? "Everybody asks that" Glover laughs. "In the US it's been found that forgers don't bother with notes of less than \$20 in value, so we've taken great care to make our two-HOUR (\$20) especially difficult to counterfeit. It is printed on watermarked paper hand-made from cattails (marsh-reeds) here in Ithaca using rare antique numerators for the matching serial numbers and a type of printing ink which is no longer manufactured." The other denominations have embossed serial numbers and are printed with several colours. Notes are also date-stamped when first issued in a colour sequence only Glover knows.

Glover spends a lot of time checking that retailers, who tend to earn plenty of HOURS, are able to spend them satisfactorily so that they will be happy to continue to take them. "I encourage businesses to start accepting HOURS in a limited way and then gradually extend. That's much better than having them go in too big and then cutting back drastically" he comments. "It's best for a high volume business likely to have [a queue of] customers at the till to take a fixed maximum amount in HOURS rather than a percentage." If he finds a business with a build-up of HOURS, he goes through the complete list of goods and services available for HOURS with the owner or manager and helps him or her draw up a shopping list.

These visits to businesses and contacts with individual participants (the Ithaca system has no formal membership) allow Glover to assess whether it is safe to put more HOURS into circulation, although the actual decision on whether or not to do so is taken by a twice-monthly meeting over a pot-luck meal to which anyone can turn up. So far, the rule has been to provide each new participant with four HOURS when he or she places their first advertisement and to allow them to claim a further two HOURS as a loyalty bonus if they are actively using the system eight months later. Interest-free loans are also available subject to the offer of suitable collateral. "We've also put HOURS into circulation by making grants to local community organisations who spend them on participants' services" Glover says. "In fact, we've been titheing. 9.5% of our total currency issue is given to groups according to decisions taken at our fortnightly meetings."

Since the Ithaca system has been growing, these methods of adjusting the number of HOURS in circulation have worked well. However, serious problems are likely to arise should ever the level of trading contract, as it might well do if the US economy picked up and participants found that, since they could earn Federal dollars more easily, they did not really want to be bothered with dealing in HOURS as well. In these circumstances,

people might find it increasingly difficult to find anyone to accept their HOURS and the system could go into a tail spin, with holders dumping their HOURS for whatever goods and services they could still get from the diminishing number of people prepared to accept them. Such dumping would cause an inflation which would further undermine confidence in the system and could well lead to its collapse.

The chief structural weakness with the Ithaca HOURS system, then, is that it lacks any means of withdrawing HOURS from circulation if the level of trading declines. Indeed, although his antennae are highly sensitive to changes in activity level, Glover has no precise idea of the total amount of trading taking place nor how many people are actively participating: he employs two part-time workers, paid in HOURS, to check that people are still prepared to accept the Ithaca unit before repeating their listing in a new issue of the newspaper. The beauty of a LET system, on the other hand, is that nobody ever needs to decide on how many units ought to be in circulation or to make adjustments to it. Each transaction creates the purchasing power needed to carry it out and, if participants pay their obligations off and drop out, the number of units in the system automatically declines.

Glover replies to this type of criticism by arguing that even if the US economy recovered dramatically, it would not remove the need for local currencies. "In the Great Depression, local currencies were issued primarily as emergency money when banks closed and when federal programmes gradually returned dollars to communities, the local issues faded away. Today, however, we can expect local currencies to become secure and permanent money supplements because millions of well-paying industrial jobs have been shipped overseas, forcing many communities to re-invent their economies on non-industrial lines. Consequently, these communities will not see dollars return even if what is left of American industry prospers. Moreover, the supply of dollars has become so monopolised by the big corporations that money will have to be created locally for use by small enterprises and traders whatever the national economy does.

"Minimum-wage service jobs keep 20% of Americans below the official poverty level, forcing millions on to public assistance or into crime. Ithacans need so much more money than we have for food, rent, clothes, fuel and pastimes that we need to create it ourselves. Government, industry and the big corporations are leaving us behind. That situation is permanent. So, therefore, is our money" he told me in a letter.

Although it might have seemed at the outset that much less work was going to be required to operate a hand-to-hand currency than a LET system, this has probably not been the case, although Glover points out that a lot of his time was taken up by the continuing process of inventing the system and responding to contingencies. When I met

him, Glover had just completed almost three years of much-more-than-full-time unpaid work to get the system going, not even issuing himself with HOURS to compensate for the effort he was putting in, although he had received five small grants during the period. Fortunately,



though, that period of hardship was ending: he was finding it increasingly possible to delegate his work and the local credit union was paying him a regular stipend.

Glover thinks that discussing whether LETS or HOURS is superior a waste of time. "We will prosper by experimenting and learning from each other rather than theorising. I'm impressed by what I hear about LETS in Australia and include a news story I wrote in 1986 about the Ithaca LETS when that started up in case people want to try a LET system."

The fact is that no local currency of any type will thrive and develop unless there is at least one person prepared to put a great deal of effort into its first two or three years and, if at any stage Glover had limited his commitment, the Ithaca HOUR system would have been just as likely to collapse as the LET system which preceded it. "If I was hit by a truck even now, people would look at their money and start to question it so I'm institutionalising the system to make it less dependent me" Glover says. At the moment, the only formal structure behind him is an advisory board, which meets monthly, but the system is a legal entity as it is covered by the charter of the former Community Self-Reliance Center.

As part of the institutionalisation process, Glover intends to hand over to others some of the work selling advertising in the newspaper. "I've exhausted all my contacts by now" he says. "New people will be able to gain access to groups which are culturally inaccessible to me." Another project which will help make the system less dependent on him is the opening of a shop through which people can sell things for 100% HOURS. "We had one on the main street last month but we had to close it after three weeks when the owner changed his plans. The store will provide an outlet for people who do things like baking bread or knitting sweaters and make it even easier for people who have earned HOURS to spend them"

Glover hopes that in a few years' time it will be possible to pay local taxes in HOURS and that almost all locally-owned stores will accept them. In the longer term still, he hopes they will help make the Finger Lakes Bioregion far less dependent on distant corporations and resources as part of a national change which turns the US into a nation of strong ecological local economies rather than a single national one. For the present, however, there is no doubt that the Ithaca HOUR works well for almost everyone who uses it. Hundreds of thousands of dollars worth of trading has been done and at least three thousand people have participated. Moreover, by the end of 1995, twenty other places had started HOURS systems.

"HOURS changed my life" Bill, an architect, was reported as saying in the system's newspaper, which carries success stories in every issue. "I had no jobs, was out of money and was scared. I got two jobs through *Ithaca Money* which kept food on the table and turned out to be steady work. One of these employers has become a good friend. Now I've got a third major HOUR job, very creative and exciting. There's a lot less stress associated with HOURS and they're fun to spend." Susan, another satisfied user, added: "I trust a person more who has HOURS in their wallet. It means they're invested in Ithaca and that they are willing to be open-minded about the value of labour."

The 200 similar testimonials which have been published so far demonstrate that, despite the HOUR's undoubted economic impact, its most important achievement so far has



been to bring people together, create friendships and build community spirit. As Lynn, another user, told *Ithaca Money* "HOURS bring back the sense of co-operation and interdependence, of a more personal and caring economy."

### *2002 update on Ithaca Hours by Caroline Whyte*

Ithaca Hours have continued to spread and the system has thrived in the last eight years. There are currently 400 participating businesses and 65 community organisations involved, and \$85,000 worth of Hours are in circulation. Stephen Burke, the president of the Board of Directors, says "we're in the adolescence of our development". He envisions the system as continuing to grow and develop for at least ten more years.

An important priority now, according to Burke, is to encourage the spread of use of Hours to people not necessarily associated with the "alternative" community. This was one of the reasons for establishing a board of directors to administer the currency; a group of people with differing backgrounds can probably communicate more effectively with a broader mix of people than one person can.

Burke thinks that whereas five years ago some local people would have dismissed Hours as being "hippie currency", now they should be more open to using the currency. A strong argument can be presented to bolster the case for accepting Hours; independently owned businesses which accept them have an advantage over large box stores, which generally would have cheaper products than small businesses but which would never accept local currencies. Burke is hoping that the increasing amount of positive media attention Hours are getting, including a slot in the ABC news, will also bolster his case. He stresses that "the system's only values are for people to help themselves and help each other"; ie, that all local people, regardless of different political persuasions, should be able to benefit from using the currency.

Burke emphasises the importance of forming alliances with strong organisations in the local community in order to make a local currency thrive. In the case of Ithaca Hours, the local credit union was an enormous help, as were the Green Star food co-op and the Farmer's Market. Other communities have benefited from the help of local elected representatives, who were able to get the media interested. Burke stresses that it's important to forge these alliances as early as possible.

The board of directors has been operating since 1998 and now runs the day-to-day affairs of Hours, as well as providing outreach to media. Thus, control of the system is no longer in the hands of Paul Glover. Glover comments that "I've been pretty invisible with HOURS for the past 2.5 years. The board has done excellent work issuing annual directories and a fine county-sponsored tourist brochure. This is especially impressive considering they are volunteers with jobs and families." He adds, though, that "the one part of the transition that's not been complete is constant on-the-street connecting with new people and asking retailers how they're doing."

Burke told me that the Board received a grant which (combined with local funds) enabled it to hire a staff-person for a year. The staff-person, Laurie Konwinski, worked a 20-hour week, doing administrative tasks such as "helping to firm up budgets, making committees run smoothly and taking minutes". These apparently small tasks added up to

make an enormous difference, since they were the kind of tasks that volunteers find it hard to make time for. Burke would like to find a way to continue having an administrative person who is compensated.

He'd also like to find a way to compensate those who do media outreach, since a tremendous amount of time and energy is spent dealing with media and people doing research about alternative currencies. He said "we are like lab animals, being poked and prodded". Glover, for his part, said he would like the Hours system to create a regular job for someone to do the on-the-street work and connecting for Hour loans. "It's imperative to have someone doing regular retail relations, to make sure that a surge of new Hours is circulating well....the system has a great capacity to generate income by making interest-free loans which are partly repaid with dollars."

Demand for Hours has remained fairly steady, despite the ups and downs in the national and world economies since 1993. "Even in boom times, people would rather pay in Hours to have their roof fixed than in dollars." People can always do with more money and Hours provide a useful supplement both when the economy is booming and when it's faltering.

The idea of using Hours to pay local taxes is still being discussed with local authorities. There are issues concerning the legality of that kind of transaction. Another idea that hasn't yet been carried out is that of having a store in town that deals only in Hours. But there have been some other novel uses found for Hours. The Board of Directors recently made a large loan of 3,000 Hours to help the local credit union, Alternatives Federal Credit Union, build new headquarters. This should not only benefit the credit union but will also bring more Hours into circulation. The credit union is helping in turn by paying in large part for the printing of a new note, the one-tenth Hour (worth one dollar).

There's now also a successful program whereby Hours are given out to some employees as pay by community employers. The employees decide how many Hours they would like to receive as a proportion of their total pay, and they get them as part of their pay packets. This has been an effective way to get new members into the system without their having to do something other than their ordinary job to earn Hours. It also helps the employer to disburse the Hours that they receive from customers.

The Ithaca Hours system has influenced the development of many other local currency systems around the world. There are about 20 local paper money systems operating in Japan, and systems are also in place in Canada and Mexico, as well as numerous parts of the United States. The E.F. Schumacher Society has also been instrumental in helping these systems get established. Its website contains links to information about the these systems.

There are two websites which deal with Ithaca Hours. They are somewhat out-of-date and will be updated over the next few months. One, at <http://www.lightlink.com/hours/ithacahours/home.html>, contains information about Hours' development and history, media coverage over the years and archives. Information is available in 17 languages. The other website, at <http://www.ithacahours.org/>, has information about current system activities and operations.

Paul Glover's book, called *Hometown Money: How to Enrich your Community with Local Currency*, and starter kit are available for \$25 from PO Box 365, Ithaca, NY 14851; tel +1 607 2724330. It can also be

"<http://www.ithacahours.com/starterkit.html>"target="newwindow"> ordered online by credit card. There is a video available in English and Spanish, which can be purchased together with the starter kit for \$40. Glover is also working on developing the Whole Ithaca Stock Exchange, which is intended "to pull money from the stock market to Ithaca." The money is invested in local projects such as public transport and improved housing.

The Alternatives Federal Credit Union is located at 125 N Fulton St, Ithaca , NY 14850, tel +1 607 2734611. fax +1 607 2776391, e-mail [afcu@alternatives.org](mailto:afcu@alternatives.org). Alternatives is a member of the National Federation of Community Development Credit Unions, which is described in more detail in a Chapter 4 update.

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Even if it avoids the problems associated with a serious decline in trade, any LETS where the system's account is in deep deficit is bound to be afflicted by a subtle, insidious malaise because of a lack of balance between supply and demand. This arises because many members - a majority perhaps - will have credit balances in their accounts and feel that they ought to be able to spend them, whereas only a small number will be in deficit and feel that they ought to work their indebtedness off. Everyone's statement will give false signals because the system itself is not trying to provide goods and services to members to reduce its debts to the same extent that individual members owing the same total sum would undoubtedly be. As a result, people find credit balances difficult to spend and tend to lose confidence in the entire system. Management committees should therefore err on the side of safety and keep their system's own overdraft very small.

Six months after trading began, the deficit on the Westport system account was equivalent to 80% of the monthly turnover<sup>10</sup>, which seemed a lot. On the other hand, it was only 300Rs (approx £15) per head for each of the 65 members, which seemed nothing in comparison with the value of the system we had built up. Eventually we reduced the deficit by holding a party which people paid to attend. LET systems should always organise plenty of parties as experience shows that members generally trade only with other members they know, so an enjoyable event strengthened our system in two ways.

But what was the Westport system's value? In economic terms it is fair to say that, so far, most LETS systems have been disappointing. The Stroud system has a monthly turnover per member equivalent to only £15, which probably amounts to less than 5% of participants' average monthly incomes. In Katoomba, the comparable sterling figure would be around £20 a month, and Westport's is much the same. Similar figures were produced by a survey of five English systems by Jyll Seyfang which showed that even when the 30% least active members were excluded, turnover per head ranged from a miserable £75 to a respectable £220 a year.<sup>11</sup>

These figures hide more than they reveal. In general turnover is low in Britain because the Department of Social Security does not permit anyone who is unemployed to participate in a LET scheme without risking losing all or part of their weekly benefit. This is on the grounds that for at least some of the period for which the benefit is paid, the claimant was 'unavailable for work' - despite the fact that in most cases no jobs with wages payable in national currency were available. As a result, not one unemployed person became involved in Stroud LETS in its first two years' trading, although the jobless are one of the social groups which stand to gain most from LET schemes. My impression is that British LETS members are generally people with low national currency incomes and some free time who join up for pleasant optional extras which they would otherwise be unable to afford. "Your members are only getting involved to the extent that they can afford to lose" an Eastern European visitor told the Stroud co-ordinator, Sandra Bruce, on one occasion. However, in Diss, Norfolk, Jyll Seyfang found them to be "predominantly middle-class people with 'alternative' or 'green' ideals and an adequate cash income who were attracted to the system by its relevance to these beliefs rather than for the economic benefits of the system."

Turnover per member is generally higher in the best Irish systems because the unemployed can participate wholeheartedly without risking their benefits. This happy situation came about because the Department of Social Welfare accepted arguments by Meitheal na Mart on behalf of all the Irish LET systems that it was in the public interest that the unemployed should be free to take part without loss of benefit because this would keep their skills alive, maintain their work habits and, since informal networks are so valuable to jobhunters, raise their chances of hearing about national-currency-paid jobs. Participation was also likely to maintain their health, we said, because many studies had shown the damaging effect that unemployment has on the health of the people experiencing it and their families, and therefore save the state resources it might otherwise have to had to spend on medical, psychiatric and social care. In August 1993, only two months after the first Irish system had started trading, the Department wrote a letter saying that it would not withhold benefits so long as LET systems did not 'begin to encroach on regular taxed and insured employment.' Such an encroachment would not, of course, be in anyone's interest and, immediately after the letter came, the Westport group introduced a rule which restricts members from doing more than 32 hours work a month on a regular basis for any one person for which they are paid in Reeks. We have also tried to convince our members that, now that a LET system is running, they should never pay cash to anyone working in the black economy. If they do, we point out, they will undermine both the national social welfare system and their own local currency network.

Both the New Zealand and Australian governments have adopted the same policy as the Irish and do not withhold welfare benefits from LETS members. Including single parents and pensioners, over half the Westport participants are on some type of social welfare benefit and LETS has greatly improved the quality of their lives. One young couple, she unemployed, he temporarily disabled after an accident, used the system to transform the garden of a semiderelict cottage they had just rented: rank grass and scrub was cut, a 200-tree shelterbelt planted and a rockery and herb-garden built and stocked. "If we had been paid in real money rather than Reeks, we'd never have felt able to spend it this way. Other

things would have seemed more important" the husband told me. "But it's had a wonderful effect on the house and how we feel about living here."

In fact, as with most things in life, those who put most effort into a LETS get most out of it and every survey seriously underestimates the systems' economic importance to particular members. Just eliminating those members who did not trade in a particular month increases the average turnover in Westport to £30, for example, and the average level of trading each month by the most active 25 members over an eight-month period was £40, with the top four participants doing over £100 a month each. Other Irish systems do much more. In the Beara peninsula in West Cork, where a great deal of effort has been put into building a strong system, the weekly stall did £600 worth of business in a single four-hour period in November 1995 and the most active 25 members are estimated to do an average of £120 business each every month. In East Clare, the record sales figure for the system's stall which operates only one day a month is £800 and its 25 most active members are estimated to do an average of £80 worth of business each a month.

The main thing any community contemplating starting a LETS should realise is that getting the system running is not enough and a local currency cannot show its full potential until those behind it have made a real effort to develop businesses doing a substantial part of their trade through it. These businesses obviously get an enormous marketing advantage over firms which have to insist on 100% payment in pounds or dollars and effectively acquire a degree of protection against outside competition which, as we have discussed, national governments are no longer allowed to provide. In addition, to the extent that they can spend local units instead of national ones to cover their start-up costs, they can benefit from what is, in fact, an interest-free loan.

Naturally, a business selling a proportion of its output for the local unit will have to pay for some of its inputs in that unit too, and the willingness of its workers to accept part of their pay in the local unit could be crucial to its establishment and survival. Initially, these firms can be expected to have to limit the proportion of business they do for local money but as the number of them grows and linkages between them develop, the limits will relax and the amount of national currency which individual LETS members need to live their daily lives will fall.

The members-only nature of a LET system can be used to create commercial advantages. For example, it provides a way around EU food preparation, labelling and hygiene regulations which might otherwise make it financially impossible for anyone to begin making food products on a small scale. When an environmental health officer called at the Westport LETS stall recently, he told the member minding it that, as the food available there was only sold to members, the conditions under which it was made were of no legal concern to him. Other EU restrictions might not apply too. For example, it might be possible for a farmer to supply milk to other members through a LET system without it counting towards the sales he is allowed to make under his milk quota.

## PANEL: CASH ATTITUDES vs LETS ATTITUDES

It is a serious mistake to think that approaches and attitudes customarily applied in the cash economy work equally well with LETS. Here are four points to notice:

1. While anyone being paid cash to do some work is at their employer's disposal, anyone being paid LETS units is at their own. LETS members tackle jobs as friends wanting to help out, not as people in financial difficulties prepared to do anything to be paid. This means that they must be allowed to arrange a time to do the job that suits their convenience as much as yours. And if they need to be collected from home because their partner has the car, you have to do it: only if you were offering cash would it be reasonable to suggest that their partner be inconvenienced. And, naturally, you offer your helper coffee and biscuits and make a good lunch. If someone doesn't like working for you, they'll never offer to help you out for LETS units again.

2. A LETS is just as much a social organisation as it is an economic one. If there is a big job such as clearing scrub to be done, don't try to find one member to do it alone over several days. That's too much like paid work. Provide food and drink and get enough people to come together so that the whole task can be completed in a day. This turns the task into a party and its successful completion will leave everyone with a great sense of achievement. This way, you'll strengthen your system and have no trouble recruiting sufficient volunteers.

3. High street banks like customers with large credits in their accounts. LET system co-ordinators do not. In fact, members with large local unit credits in their accounts present a much more serious threat to a system than those who have run up large deficits. This is because those with hefty credit balances are among a system's most valuable members because they must have been providing goods and services which other members like to have reached their surplus position. Consequently, if any member amasses more units in their account than they are able to spend and cuts down the amount of LETS work they are prepared to take on, every other member will find their units less useful and harder to spend. In short, the system will begin to unravel. The top priority of every LETS co-ordinator should therefore be to approach members with strongly positive accounts to find out if they are experiencing any difficulty spending their units. If they are, the co-ordinator must find other members to supply goods and services the members with excessive balances want to help them bring their surpluses down.

4. "Money is a way of finding out who you can trust. After you have established that, it just doesn't matter any more" Edgar Cahn, the originator of Time Dollars, the American system of service credits described in the next panel, told me once. This certainly proves true with LETS units very much more quickly than ever it does with national currency and your relationship with some LETS members you are dealing with regularly will soon begin to seem much more important than the balance in your account. After a little while it feels rather petty to put a value on each transaction and give or receive a cheque. Each party begins to give as they can, confident that they will always be able to take as they need. Mutual trust becomes paramount. The spirit of an old-style Irish meitheal gets reborn.

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In its early days, all one can expect economically from a LET system is that it provide a useful supplementary income for the weaker members of the community and a safety net to which the stronger may have to turn if the world economy crashes. That's a lot in itself but the real benefits at this stage are not so much economic as personal and social and many members feel that it would be worthwhile launching a system for these alone. On the personal level, being forced to think of services to offer other members enables people to escape from the confines of their job and develop skills which would otherwise have lain dormant. For example, many people play a musical instrument reasonably well but would never dream of advertising for engagements in the local paper. But when a fellow-member of their LET system asks them to play at a party, they are delighted to do so, not because of the local currency they will earn - that just shows that their ability is valued - but because of the fun they will have giving pleasure to others. Trading through LETS, particularly if they do not confine their activities to their normal professions, introduces members to a wider circle of people than they would have probably come to know so well in any other way. A member of the Newbury system wrote in the LETSlink Newsletter that a 'virtual village' had been created in her town since trading began <sup>12</sup>

Despite these benefits, a LET system will only work well if there is underemployment and an inadequate supply of national currency in a region or amongst a social group: if everyone is fully occupied and finds that their activities are not seriously restricted for lack of cash, why should they bother to join a LETS and what economic benefits could it bring them if they did? A Time Dollar system (see panel) would be better in such a community.

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#### PANEL: THE DOLLAR THAT DOES NOT WANT TO BE MONEY

In early 1994 only about ten LET systems were trading in the United States and their total membership was small. There were, however, over 150 Time Dollar systems operating with anything from a few dozen to several thousand members spread out across some thirty states. Were they filling much the same economic need? Since the cover of their inventor's book refers to Time Dollars as a new currency, one might be forgiven for thinking so, particularly as Ralph Nader's Foreword says that 'citizen action must rest on a new economic base: one that makes it possible for people to meet their own needs while working to rebuild community and revitalize democracy at a grassroots level.'

But while they have similarities, the two systems differ in many important respects and Dr. Edgar Cahn, a campaigning lawyer who began developing the Time Dollar idea in hospital recovering from a major heart attack, would be appalled if his creation ever became as acceptable as national currency, a situation which would be every LETS enthusiast's dream. "Money is ideal for strangers because you can get things with it regardless of whether you know the person you are dealing with or not. Its use preserves a degree of anonymity and does not build community and trust" Cahn says.

For him, the fact that Time Dollars can only be spent in a limited number of ways is a positive advantage since he wants them to empower people to meet social needs which can no longer be afforded in most modern economies. "Real money is all-purpose: you can buy anything with it" he says. "Time Dollars can only buy things of special value such as companionship, love and caring. Maybe we don't really want the things we value most to be up for grabs to the highest bidder." Revitalising a community economically is no part of his brief.

Time Dollars are earned by providing care for other people and can only be spent on buying similar care for oneself or for one's relatives and friends. The largest system is in Miami where volunteers' services include light housekeeping for the sick or elderly, deciphering Social Security rules, companionship, respite support for carers, lifts to doctors, the church or the supermarket, letter writing, reading to the blind, pet care, baby sitting, English and Spanish classes, sewing classes and adult day care. Whichever service volunteers provide, all earn the same rate, one Time Dollar per hour and, as with LETS, records are kept on a computer in the co-ordinator's office. Unlike LETS, however, the co-ordinator matches volunteers with clients, rather than having the latter hunt through a directory for a volunteer who seems right.

Many volunteers are elderly people who, on one level at any rate, rationalise their participation with the thought that by providing help now they are earning the right to call upon other members should they ever need care in the future. However, many programmes find it difficult to get volunteers to report their hours and since only 15% of Time Dollars are ever spent and no-one is refused care because of a shortfall in their account, Cahn believes the real reason people join is to be of service to others. "People must request help but it doesn't matter if they haven't the Time Dollars to pay for it. You lose your volunteers if you don't keep them assigned" he says.

It is because the volunteers primarily want to give, rather than to earn, which makes it so important that Time Dollars should not be seen as money and should have no monetary equivalent, that they should not be bought and sold. "Yet the fact that they receive something for their efforts is important, too, because it validates their contribution" Cahn says. "A teenager here in Washington DC who was earning Time Dollars doing yard work for elderly neighbours told me that the Time Dollars meant a lot to him because if he wasn't getting something his buddies would think he was a chump. Earning something he could give away gave him status. Time Dollars are a hybrid of the psychological rewards of volunteering and of payment. They are a form of money which is not a commodity."

As such, they permit people to do things which they would never do for cash. "A retired bank president would never mow a sick person's yard for money, but he'll do it for Time Dollars" Cahn says. "Market wages incorporate status hierarchies. Ask yourself if you would ask your mother to accept market wages to go next door to clean up a neighbour's house. Then ask yourself if you would have the same reservations about asking her to go over and help a sick neighbour by cleaning up and accepting Time Dollars so that Granny, living across town, could be picked up and taken in to the doctor. Price is not the issue. It is status. To accept money for such a task implies one has accepted the market status defined by the wage."



Cahn lists other ways in which Time Dollars differ from national currency and yet are much superior to it if one is trying to build community. "Money is frictionless and 'efficient' yet what an economist calls inefficiency and friction are sometimes the glue that holds society together. Unlike the national currency, Time Dollars are issued and spent locally. What we are doing by recording them on our computer is acting as the community's memory in a way which wouldn't have been necessary a generation or two ago when people were less mobile. Real money knows no loyalty to community or even country. A dollar put into a poor community can exit in hours to a cigarette manufacturer or a Japanese electronics firm. It is estimated that of every dollar the Federal Government puts into an Indian reservation, 75 cents flows out within 48 hours. Moreover, the supply of real money is limited. The supply of Time Dollars is not - it only depends on the willingness of people in an area to help each other."

Cahn and his wife Jean were the co-founders of Antioch Law School in Washington which trained - and radicalised - its students by having them work under supervision on cases for the poor. "It was founded on the quaint idea that law and justice should have something to do with each other" Cahn comments wryly. But recovering after his heart attack in 1980, he found the tables were turned. "I'd always been the doer, the person who made things happen, and now here I was, lying in bed, and people were doing things for me. I was an object, a taker and I didn't like it. I'd been reading about other people - single mothers, the elderly, minority teenagers and the unemployed - that society puts on the scrapheap and then regards as takers draining its resources. And I thought 'Those other people don't like being takers any more than I do. There's got to be a way to enable them to meet some of society's needs.'"

As Cahn sees it, these needs arise because the informal, non-market economy has broken down over the years as households bought for cash more and more of the things they had previously provided for themselves. "McDonalds' now provides the meals, Nintendo and video tapes the entertainment, insurance companies and the police the protection, Medicare and Medicaid the nursing care and so on. Unfortunately, these suppliers can generally provide only 70% of what's needed - the police cannot be effective without community help, for example, nor can the schools educate children properly without parental support. But with both partners working to provide the money for these services, parents seldom have the time to fill these gaps. It's not that nobody has the time, but the available hours have been dumped on the elderly and the unemployed. The fact is that very few families, and certainly not the nation as a whole, can afford all the services they need if they have to be bought from specialists at market rates. To give you an example - supposing I gave up brushing my teeth myself and called in a dental hygienist to do the job for me. Whatever do you think that would cost? In the market economy one cannot even buy an hour of one's own time with one's take-home pay from an hour of work."

After Edgar had recovered, the Cahns moved to England for several months so that Jean could complete a course. This gave Edgar, whose doctorate is in English Literature, the chance to develop his ideas at the London School of Economics. He remembers some lively discussions on the relationship between economic efficiency and equity. "My argument was that you can only say something is efficient in relation to your objectives" he says. "The superior efficiency of the market economy turns out either to be illusory or to have hidden costs. It only functions as well as it does because it assumes continued uncompensated contributions and support from the very non-market

institutions it is undermining." In 1986, the Suntory Toyota International Centre for Economics at the LSE published his ideas under the title: Service Credits: A New Currency for the Welfare State as part of a series of pamphlets.

That same year, back in the US with their ideas formed and three pilot projects under way, the Cahns persuaded the Robert Wood Johnson Foundation to give \$1.2m to fund Time Dollar programmes for three years in Missouri, Washington DC, Miami, San Francisco, Boston and Brooklyn. Five of these six schemes are still running, the sole closure caused by the commercial takeover of the voluntary hospital where one was based. "If you pay a full-time manager and two part-time assistants it costs \$50-\$60,000 a year to run a typical system. This works out at about \$1.25 per hour of care given, much cheaper than anything which can be provided in any other way. In fact, there are very real economic savings because people can be discharged from hospital sooner if they've got someone to look after them at home."

Since Time Dollars and LETS have different objectives, one primarily social, one more heavily economic, there is no conflict or incompatibility between them and many communities ought to seek to establish both, particularly as those becoming involved in each will tend to differ. At the very least, LETS groups can learn from Cahn's ideas on the conflict between community and national currency and seek to ensure that, in their enthusiasm to make their local unit as useful and as versatile as possible, they do not re-introduce too many of the bad features of the monetary system from which they are trying to break away.

Jean Cahn died of cancer in 1991 and, since then, Edgar has been working up to 80 hours a week with students and volunteers based at his house in Washington to spread the Time Dollar idea as a memorial to her. When I met him, he was working on ways in which Time Dollars could be used on public authority housing estates to develop tenant management systems, help families under stress, assist tenant-operated enterprises and reduce vacancy rates and building deterioration. "Too often what we call growth in the Gross Domestic Product is simply a transfer of functions from the household economy to the market economy. Every time we put a grandmother in a nursing home, that is a contribution to GDP. Every time we enable her to continue to live at home, it is not" he told me.

"Although there is a widespread understanding that the disintegration of the family is the source of most social problems, no-one asks how we can rebuild the non-market economy. This has led to a simplistic fixation on entry into the job market as the panacea for eradicating poverty. Yet the non-market economy is the only economy we control; the other, the market economy, is irreversibly embedded in the new global economy. We lack a viable strategy to deal with poverty because we are concentrating on the wrong economy."

#### *2002 Update by Caroline Whyte*

Over the past six years the Time Dollar system has evolved considerably. Edgar Cahn says that "there is now an acute awareness of the currency's value as a way of dealing with social problems. Many new programmes have emerged; some of these have been neighbor-to-neighbor programmes, but there are also an increasing amount of

programmes which are more specialised and deal with a specific social justice movement."

One such programme enlists the help of children with conditions such as ADD, whom Cahn says "the system has written off". They are paid Time Dollars so that they can tutor younger children in computer skills. Cahn says many of these children have experienced a "remarkable turnaround" as a result of becoming able to perceive that they can contribute something to society. A similar programme involves women who have been jailed for drug abuse. They are paid Time Dollars on their release, for counselling teenaged girls on subjects such as HIV/AIDS. The women can then use Time Dollars to pay for their own treatment.

Another programme, the Youth Court system in Washington D.C., handles close to a third of the children admitted to the system. Young people are paid Time Dollars to serve on juries of their peers. The offenders, who have committed minor offences such as truancy, are sentenced to do community work. They also have to serve on the juries and are paid Time Dollars for doing so. Teenagers who go through this system have a lower rate of recidivism than other offenders.

In 2000 the Youth Court's Grand Jury publicised a major indictment of the D.C. justice system. As a result, two youth jurors were appointed to a commission which issued a report for the Mayor of D.C., detailing ways in which the juvenile justice system needed to be restructured. This report had a strong influence on the mayor and he put \$2 million into restructuring, with another \$2 million going into prevention. Young people in D.C. thus became involved with civic engagement and were able to introduce changes to the system.

Cahn says the Time Dollar system has "taken on many different colorations". Another program has involved day-laborers in the area outside DC. These workers have few rights and are paid low wages. They can earn Time Dollars by picketing outside the offices of employers and raising public awareness. They then spend the Time Dollars in community groups which give them support and advice.

A new enterprise which is being launched will pay young people Time Dollars to make videos about seniors, with the seniors describing their lives and telling stories. The seniors will thus be able to create a lasting legacy. And yet another program, in El Paso, Texas, involves a clinic that serves 16,000 families. Patients with diabetes are paid Time Dollars when they change their nutritional vales so that they are eating a healthier diet. They can spend the dollars on getting support for paperwork and documentation (many of them are immigrants).

The idea of Time Dollars has spread to other countries such as Japan, China and South America. The fact that the IRS and British tax system have both made it clear the Time Dollars are tax-exempt has been a big help. Tony Blair has embraced the idea and provided funding for Time Dollar programs in the UK. In the US, grants from the Annie Casey Foundation and Ford Foundation have enabled the programme to be introduced in 14 cities.

Independent Time Dollar-type programs have also been established in Australia, Brazil, India, Pakistan and Cuba. Since the system is not centralized, there is no formal way of

keeping track of what programs are where, and each individual programme is somewhat different structurally from the others.

### *Time Dollars in Japan*

In 1999, the Time Dollar Network Japan Non Profit Organization was established. Masako Kubota, who is the CEO of the organisation, tells me that the system there is directly based on the system in the US. One difference, however, is that many Japanese communities have designed paper currencies and coins to use because the Time Dollar software is not available in Japanese. Some tokens are even made out of bamboo.

Ms Kubota says "there are 13 Time Dollar systems operating in small communities in Japan, with about 40 to 60 people in each one". She estimates that at least 160 communities in Japan have some kind of local currency, which could be Time Dollars, LETS or Ithaca Hours-type money. The Time Dollar communities tend to be within a small, walkable geographical area. The age range of people involved is quite broad - from young mothers to senior citizens - although there is less involvement of teenagers than in the US, because in Japan they tend to have less spare time. However, one programme has had elementary school students interviewing seniors and designing books that tell the story of the senior's lives. This has been a great success.

As with elsewhere, in Japan there has been a breakdown in traditional community structures and extended families often no longer live together. Ms Kubota advises anyone interested in establishing a Time Dollars system to focus on the mission - rebuilding community and encouraging reciprocity - rather than the currency itself. She says that "the process of people coming together to discuss problems is the most important thing".

Ms Kubota's website about Time Dollars in Japan, (in Japanese), is at [www.timedollar.or.jp](http://www.timedollar.or.jp). She can be e-mailed at [masako@us.ehime-iinet.or.jp](mailto:masako@us.ehime-iinet.or.jp). She would like to set up a discussion e-group, and eventually she would also like a network to be established whereby people from different systems can communicate with each other. She says she is invited to so many places in Japan to talk about Time Dollars that she can't possibly keep track of them all.

The Time Dollars website is at [www.timedollars.org](http://www.timedollars.org). It's about six months out of date (as of August 2002) but will be updated soon. Cahn says that by October 2002 there will be upgrades available of the Time Dollar software system which is available on the website. By December there should also be Time Dollar checkbooks available, with magnetic coating and a barcode reading. Information about Time Dollar-type schemes in the UK can be found at [www.timebanks.co.uk](http://www.timebanks.co.uk)

Cahn has published a book about Time Dollars, *No More Throw-Away People*. It can be ordered from the website for \$17.95 plus postage. A video and manual are also available. The Time Dollar Institute is located at 5500 39th Street NW, Washington DC 20015.

## PANEL

Womanshare is a highly successful time-exchange system that has operated in New York since 1991. As with Time Collars, credits cannot be exchanged and members work for each other on an hour-to-hour basis in order to value "the resources of each individual...independantly of the prevailing economy". Membership, which costs \$50 a year, is limited to eighty women to foster group cohesion; the result is a long waiting list. "Having just women [is] easier", Jane Wilson, one of the founders, comments. She says that men tend to want to take over and to keep an exact account of trades. The group has a strong social side and potluck meetings are held every month in someone's home. Members are required to attend at least two a year and also to do at least six hours' work for other members each quarter. The wide variety of skills and services available within the group is publisized in a directory that is revised every three months.

### *2002 Update by Caroline Whyte*

Womanshare is still functioning after 11 years. The group has never skipped a monthly meeting in that time. It is now self-managed, ie there are no directors as such, and in general its structure has become less formal. Diana McCourt, one of the founders, says that "it has developed into a community of women who exchange work, and we often ignore the structured exchange system". Membership went up to 100 for a while, but is drifting down now because the organisation isn't taking in new members.

The group has influenced many other organisations and Diana gets phone calls requesting information about it from all over the world. The Womanshare website is at [www.womanshare.com](http://www.womanshare.com). The street address is Womanshare, 680 West End Avenue, New York, NY 10025, tel +1 212 6629746.

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LET systems are therefore very vulnerable to changes in the state of the mainstream economy. Since every LETS member prefers to be paid in national currency whenever it is available because that currency can be spent on a wider range of things, LET schemes will tend to develop during recessions as the national currency gets scarcer and to weaken or collapse whenever the national economy improves. In my view, it was the improvement in the Canadian economy in the mid 1980s which hit Michael Linton's original LETS in the Comox Valley, although he attributes its period of dormancy before it was revived by a women's group to the departure of a dentist who had been prepared to take payment in the local unit while he was reconstructing his surgery so that he could spend the proceeds on the building work.

"Our problem was that although we had 600 account-holders at one point, we never had more than about five shops which would accept our Green Dollars" Linton told me. "And these weren't large shops either. So when the dentist left the district, a lot of the builders and handymen who had joined the scheme in the early days and had sent their families to

him for treatment found that they couldn't spend their Green Dollars that way and they weren't greatly interested in the services of the rest of the members, like the single mothers offering babysitting or aromatherapy." So the tradesmen stopped working for Green Dollars, which left the rest of the members with nothing major that they really wanted to buy either as they had been treating the LETS primarily as a way to get their houses done up. Trading more or less stopped. Linton disagrees with my theory that the underlying reason the builders stopped participating was not that the dentist had gone but that the economy had improved and they found it easier to get paid in cash. His explanation and my theory are not incompatible and both probably contain part of the truth. However, there is no doubt that the Comox experience underlines the importance of ensuring that people's real needs, as opposed to their peripheral pleasures, can be met through a LETS.

Comox Valley LETS was by no means the first local currency experiment, and Linton says that he spent almost a year researching earlier systems before launching it. "All the components of LETS systems were drawn from other sources\* but the precise arrangement of them seems to [have been] unprecedented" he says. The commercial barter networks were one source and the Useful Services Exchange established in Reston, Virginia, by Harry Ware in the early 1970s was another. Where Ware got his ideas I have been unable to discover but records of people setting up systems to enable exchanges to take place without the use of official currency go back a long way. In 1696, for example, a Quaker, John Bellers, proposed that unemployed workers be paid in labour notes for goods they had produced with materials supplied by the system's central office. The office was to recover its notes by selling the goods either to the workers themselves or to others who had received notes from the workers in payment for food or rent. The idea was tried out

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\* The immediate precursor of LETS in Britain was Link, a scheme to help elderly people develop new social contacts and to keep mentally and physically fit by carrying out small tasks for other members. The first Link was set up in the London borough of Merton in 1976 by a health insurance company, British United Provident Association, and a group of charities, including Age Concern. By 1978, thirty-five systems were operating, all in urban areas, but a survey by Age Concern the following year showed that twenty-two had become inactive. The last surviving system closed in Bath in 1990. A local system was run by an unpaid volunteer manager who would pin up a card for each member on a notice-board in the system's office giving details of the work that each member was prepared to do; members would then try to match their requirements with the offers on the cards. However, although membership was open to all, most of those who joined were elderly, and there was an acute shortage of people offering to do tasks requiring physical strength. (The Bath scheme overcame this by getting schools involved). Members could be given enough tokens to pay for four hours' work on enrolment and could only get more by earning them from other members. The running costs of the system were covered by charities or by bring-and-buy sales and coffee mornings. This meant that they were almost always seriously underfunded: the Bath system managed on £1000 a year, including office rent. There seem to have been two main problems with Link apart from its age structure. One was that its attempt to treat everyone's time as of equal value (one token per hour) was not seen as realistic by many members, who frequently had to enhance their tokens with cash to secure someone with the skills or strength to do a particular job. The other was that members used the office only to make initial contacts with people living in their district and then made further contacts directly. This meant that people joining an established system found it difficult to get involved.

in Bristol and failed but was revived almost 140 years later by the philanthropist Robert Owen, who republished Bellers' book. Owen, however, was no more successful than Bellers: his National Equitable Labour Exchange opened in 1832 and closed less than two years' later. The Bank of Exchange set up in 1848 by the French socialist Pierre-Joseph Proudhon<sup>\*</sup>, best known for his view that property is theft, was an equally unsuccessful variation on Bellers' idea.

For our purposes, however, the most relevant experiments with local currencies were carried out in the 1930s in response to severe shortages of national currencies at the time. These shortages arose mainly because a national currency has to perform two functions - that of a means of exchange so that people can express the value of different goods and services and transfer that value to each other, and also as a store of value which holders can save up until they are ready to buy. These roles can conflict with each other. During an inflation, for example, the monetary unit fails as a store of value, encouraging people to exchange their cash for goods as quickly as possible, thus speeding the inflation along. Conversely, when prices fall in a depression, those who can hold on to their money do so because they expect to be able to buy whatever they need more cheaply later on. Naturally, their hoarding removes money from circulation, thus reducing other people's ability to buy things and accelerating the rate at which prices fall.

Reichmark hoarding became a severe problem in Germany during the economically depressed period immediately after the First World War and the *Freiwirtschaft* (Free Economy) movement developed to tackle it. In 1919, one of its members, Hans Timms, set up an organisation to issue a supplementary currency based on the writings of a friend, Silvio Gesell, who after making his fortune as an importer and manufacturer in Argentina had returned to Europe in 1906 able, as Keynes put it, "to devote the last decades of his life to the two most delightful occupations open to those who do not have to earn their living, authorship and experimental farming."<sup>13</sup> Keynes devoted five pages of his major work, *The General Theory Of Employment, Interest and Money*, first published by Macmillan in 1936, to a discussion of Gesell's contribution to the theory of money and interest. Keynes regarded as "sound" Gesell's idea of increasing the cost of holding onto money by requiring stamps to be fixed to it to revalidate it regularly, although he pointed out that such people would switch their saving to substitutes such as

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<sup>\*</sup> Proudhon believed that the ideal rural society was one based on small peasant farmers who supported themselves by working independently on land they owned. This brought him into direct conflict with Marx, who believed that big farms, like big factories, were bound to displace smaller ones because of their superior efficiency, and called for the social ownership of the land. Marx, who ridiculed Proudhon as a petty-bourgeois, also saw the small farm as a barrier to social and economic development and a 'lead weight' on the working-class movement. One of the great tragedies of modern times is that when these ideas were debated at the Second Congress of the International Workers' Association in 1867, Marx carried the day, and henceforward the industrial movement not only gave its support to the destruction of the peasantry but also to industrialization.

foreign money, jewellery and precious metals to escape the levy. “I believe that the future will learn more from the spirit of Levi than of Marx,” he wrote.



The currency was called the Wära, a combination of the words *Ware* (commodity) and *Währung* (a currency unit which preserves its value). Notes were issued for 0.5, 1, 2 and 5 Wära, each Wära being worth exactly a Reichsmark - indeed, it could be exchanged for one in emergencies since the entire proceeds from the sale of Wära notes were lodged in a redemption fund. The key difference between the Wära and the Reichsmark lay in the fact that the former were costly to hoard since anyone holding some at the end of a month had to buy special stamps costing 2% of each note's face value to re-validate them for use during the following month. Naturally, this meant that anyone who received Wära tried their best to spend them before they needed to be stamped again and the new currency began to circulate rapidly among *Freiwirtschaft* enthusiasts throughout Germany. Timms' organisation used the 2% monthly levy for promotional purposes.

Gesell got the idea of making it expensive to hang on to money from *brakteates*, the thin silver-alloy coins which were issued by the rulers of the dozens of small independent states in what had been Charlemagne's Holy Roman Empire from the 12th to the 15th centuries and which were at least as risky to hold as any of the commodities they could be used to purchase. Most of this risk originally stemmed from the fact that they could lose up to a quarter of their value overnight because whenever a ruler who had issued a batch died, all the coins bearing his head became invalid and had to be exchanged, at a 20-25% discount, for new ones bearing his successor's features. Predictably, however, rulers soon began to recall *brakteates* as a form of taxation, sometimes as often as three times a year. Johann II of France, who ruled from 1350 to 1368, changed his currency no less than 86 times.

Having to use money which lost its value so quickly meant that people spent it as soon as they received it since even holding it overnight involved a risk. So, according to Fritz Schwarz, a Gesellian writing in 1931, instead of saving this fast-depreciating cash, people spent any surplus sums they might have on improving their houses and property and he points to the fine houses relatively ordinary folk were able to build during the period<sup>14</sup>. The construction work meant that there was a high demand for labour and wages were consequently good: an ordinary day-labourer could expect to earn six or eight groats a week which was enough to buy four pairs of shoes or two sheep. Working hours were short - there was trouble in Saxony when the mine-owners wanted to increase daily hours from six to eight - and there were at least ninety religious holidays a year. This meant that craftsmen, who took Mondays off to recover from over-indulgence on Sunday, worked less than a four-day week. It was a time of great prosperity, Schwarz claimed, with 'no



difference between the farmhouse and castle'. Farmers wore coats with golden buttons and had silver buckles on their shoes.

Ironically, it was gold which brought this golden age to a close. A bracteate was generally 'a totally wretched and ugly little disk of metal, very thin, of low fineness, easy to lose, and easy to break'<sup>15</sup> which had no intrinsic value because of its low silver content and was therefore useless for international trade, particularly as it could be recalled at any time. Realising this, the Genoese and then the Florentines issued gold coins in 1252 and Venice followed in 1284. These new coins could act as a store of value as well as a means of exchange and allowed people to build up their assets in ways that did not involve employing others and thus passing their surplus around.. Moreover, as they spread, trading itself became much more difficult : "The means of exchange disappeared into socks and mattresses" Schwarz writes and as money became scarce, interest rates soared despite the opposition of the church. Some merchants found it more profitable to sell off their stock and lend out their capital and a gulf developed widened between families with an income based on interest and the rest of the population. The demand for labour dropped, wage rates fell and unemployment appeared. And, to cap it all, rulers had to find other means of taxation.

Nobody in authority took much notice of the Freiwirtschaft currency until 1931 when the purchaser of a defunct coal mine at Schwanenkirchen, a village with a population of five hundred in Bavaria, was able to re-open it by paying the miners in Wära which he had arranged they could spend in the village shops. In their turn, the shopkeepers forced their wholesalers to accept Wära and the wholesalers passed them back to their suppliers, who spent most of the notes they received on buying Schwanenkirchen coal since there were few other ways in which Wära could be used. According to an account published in August 1932 in an American magazine, *New Republic*, the effects on the village were dramatic: "One would not have recognised Schwanenkirchen a few months after work had been resumed at the mine. The village was on a prosperity basis, workers and merchants were free from debts and a new spirit of life and freedom pervaded the town....Reporters came from all over Germany to write about the 'Miracle'" . The article pointed out that if Reichsmarks had been used in place of Wära, they would have been hoarded because of the uncertain times and the venture would have failed. Moreover, even if they had not been hoarded they would have dispersed all over Germany and there would have been little likelihood of their returning to Schwanenkirchen and increasing demand at the mine.<sup>16</sup>

Although only 20,000 Wära were ever issued by Timms' central organisation, some 2.5 million people handled them in 1930-31 as a result of their high velocity of circulation. Their success in Schwanenkirchen terrified the German government which feared they would cause inflation and after an unsuccessful court action on the grounds that Wära infringed the state's sole right to issue money, it passed emergency legislation in November 1931 to bring their use to an end. The mine in Schwanenkirchen closed and its workers were plunged back into unemployment.

## PANEL: MUTUAL CURRENCY SYSTEM PROVIDES BUSINESSES WITH CHEAP CAPITAL

Perhaps the best example of the benefits that can flow to businesses which join an arrangement to create a private currency is provided by WIR, the Wirtschaftsring (Economic Circle) co-operative in Switzerland, which, since its inauguration in October 1934, has grown into a massive organisation turning over 2,521m. Swiss francs (£1,200m.) in 1993 among its 60,000 account holders. Indeed, the WIR system is so simple, so successful, and saves its participants so much money by enabling them to obtain zero-interest working capital that it is surprising that similar systems have not been set up around the world.

Essentially, WIR is an independent currency system for small and medium-sized businesses. A company wishing to join contacts the head office in Basle or one of the six regional offices and sets up a meeting at which the firm's credit requirements and the collateral it is able to offer are discussed, just as they would be if it sought a loan from its bank. As first mortgages in Switzerland do not usually exceed 60% of the purchase price of a property, the collateral most frequently offered is a second mortgage on a house or business premises: in recent years, over 80% of WIR's loans have been secured this way. If the meeting is successful, a loan application is sent to the WIR credit approval committee which checks the security and obtains a report on the applicant from a credit-checking agency. If the report and the security are in order, the new participant is given a WIR cheque book, a plastic charge card and a fat catalogue listing other participants with whom the loan has to be spent.

Although the sums in WIR accounts are denominated in Swiss francs they are not Swiss francs at all since, unless one breaks the rules, they cannot be turned into cash, paid into ordinary banks or given to non-members. We will therefore call the system's units 'Wir'. Even when someone wishes to leave the organisation, he cannot get national currency out. As a result, the purchasing power created when the credit committee authorises a loan stays entirely within the 'ring', generating increased business for all participants. Secured loans of this type are cheap. In 1994 Wir mortgages carried a service charge of 1.75% and relatively long repayment terms could be negotiated; the charge for ordinary current-account loans was 2.5%.

The credit committee has a policy of restricting the total value of the loans it authorises to one-third of the system's annual turnover in order to maintain the Wir's value. All repayments are made in Wir earned when the member sells his or her goods and services to other participants. Only the service charges on them have to be paid in Swiss francs, since the co-op itself cannot function without some national currency. Its other charges - a quarterly subscription of 11SFr. to cover the cost of the WIR magazine and a new edition of the catalogue and a levy of 0.6% of the value of each cheque lodged to a participant's account - are all in Wir.

Almost every conceivable product and service was listed in WIR's summer 1994 catalogue which included 167 lawyers, 16 undertakers, 1,853 architects and 18 chimney sweeps. "The main areas are gastronomy and the building trade while the odder categories are astrologers, piano tuners, matrimonial agencies, genealogical researchers and magicians. There's even a circus" says Claudia Horny from WIR's public relations office <sup>17</sup>. Not all suppliers will take 100% payment in Wir, but with several sources listed for most products and services, it is generally possible to find at least one who will, particularly at slack times of year or during sales. Prices and payment terms for transactions in Wir are just the same as they would be for cash and, until recently, if a supplier insisted on getting a proportion of his invoice paid in national currency, two cheques, one in Wir, one in Swiss francs, were handed over at the same time. However, since the beginning of 1995, it has been possible to make combined payments of cash and Wir using a single plastic charge card.

In fact, the percentage of the Swiss franc price of the goods and services that participants will supply for Wir is discussed with each member when he or she joins and the service charges mentioned so far only apply to 'official' members who have agreed to guarantee to accept at least 30% of the payment in the system's unit. Members unable to give such an undertaking are called 'unofficial' and pay higher charges - 3.5% for current account loans and a 1.2% rather than 0.6% levy on the value of each cheque.

The system was set up as a co-op in 1934 by Dr. Werner Zimmermann and Paul Enz with some of their friends to overcome the currency shortages of the time. The group, influenced by Silvio Gesell, had as its motto 'Free exchange of goods and services without exploitation of our fellow man and without government coercion' and saw high interest rates as an aspect of exploitation. Initially, the idea was simply that businesspeople who knew and trusted each other would extend each other credit for purchases within their group, cutting down their need to borrow from banks. According to a 1971 report on the system they thought they could transact business among themselves with a system of chits similar to IOUs that would cover at least part of the price of any transaction, the balance being settled in the conventional way.....(However) it was soon found that in order to bring about wider acceptance of these chits, and also to comply with existing banking laws and avoid financial losses, collateral was essential' <sup>18</sup>

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This insistence on collateral might partially explain why WIR has survived and similar systems established at the same time in England, Germany, France and Austria have disappeared without trace <sup>19</sup>. However, an official history of WIR produced in 1984 for its 50th anniversary suggests that WIR is the sole survivor because the other circles did not realise the significance of what they were doing and wound themselves up when the financial crisis was past <sup>20</sup>. But opposition from vested interests played a part in some cases too. Zimmermann and Enz visited circles in Norway and Denmark before starting WIR and when they returned to Denmark for a second visit, they found that the circle there had been closed by the government after pressure from the banks.

The structure of WIR reflects the original small-group concept. Although by the end of 1935, the co-op had 3,000 accountholders, only sixteen shareholders had any say in how the organisation was run. After 1939, additional shareholders were permitted but

even today, only about 5% of participants hold shares entitling them to select the board of directors.

A Dutchman, Hank Monrobey, tells me he attempted to set up a rival to the WIR which would be open to anyone in the late 1970s but the venture was closed down by the Swiss police. Monrobey, a computer expert, had become familiar with the way the WIR worked in 1977 when he was asked to devise an electronic data transfer system to prevent members breaking the rules and selling Wir for Swiss francs. At one stage, the exchange rate dropped as low as 55% and as this figure was quoted on a electronic news screen at the main entrance to Zurich central station, WIR's prestige suffered.

Monrobey says that he structured his organisation, SYS Network, to enable it to avoid the constraints placed on the WIR by the Swiss central bank. There was a lot of public interest in it and two members of the Zurich branch of the Economic Crimes Police attended one of his presentations. He repeated the presentation at police headquarters a few days later and after he had finished, Monrobey says that the senior officer present told him that SYS could wipe out Switzerland's banking institutions and it would not be allowed to do so. Shortly afterwards, his Swiss partners were threatened with long and detailed investigations into their tax affairs and so much pressure was put on the Swiss president of SYS that he committed suicide. The network was wound up.

When Monrobey tried to set up a similar system in Holland in 1983 the reaction was equally hostile and a daily paper appeared with the banner headline "Monrobey is damaging Dutch Economy: Central Bank to Investigate". During this investigation, according to Monrobey, one of his associates told the bank's inspectors: "You can never stop Monrobey doing what he's doing. You'd have to beat him to do that." A newspaper got hold of the story and embroidered the words so that they read 'beat him to death' and next day when Monrobey was walking in the street, one of two youths on a moped took off his helmet and swung it at him. Monrobey saw the pair coming and tried to get out of their way but the helmet hit him in the mouth, damaging his teeth, some of which had to be extracted later. He is convinced that the attack was not a random incident but had been ordered by a commercial bank.

Then the tax authorities began their own investigation and in April 1984, a Dutch business magazine, FEM, published an eight-page cover-story about the network. "It gives the impression that he's a crook" a Dutch friend told me after reading the copy I gave her. "It doesn't say so explicitly, of course, but if you read between the lines". Monrobey's wife was so upset that five days later she filed for divorce.

"She could no longer carry the burden of living in fear with a man who had decided to go against the banking wind" Monrobey says. "I decided to liquidate the network but before it was wound up the Central Bank's eight investigators had completed their report, saying it was the cleanest fiscal operation they had ever seen. The tax people said the same." He left for the United States to make it harder for his enemies to trace him. "I arrived in the US almost penniless because when I got there I found that my English partners had blocked my bank account in Europe to try to force me to go back there" he told me.

Today, however, he is back on his feet financially again and busy developing a network of 'Liquid Capital Circuits' (LCCs) in the United States. An LCC is a community-

controlled payments system: members lodge national currency to their LCC account and their account balance is recorded as 'electronic capital' on a micro-chip in a special credit card, the DCN-Passport, which they carry. DCN stands for 'Dynamic Capital Network' which links local LCCs and enables 'each member of the network to buy and trade with every other network member' wherever in the world their respective LCCs are located. In an explanatory brochure Monrobey writes:

The LCC system revolves around consumers using the DCN-Passport for their normal purchases. Businesses which accept the DCN-Passport as payment will see a tremendous influx of new business as members of the LCC choose to patronise firms which support their local economy. As your business grows, the LCC will be there to provide you with the needed capital to fund your growth. The LCC will establish interest-free financing for additional inventory, new employee training, improved facilities etc. As your local LCC grows it will begin to replace any current bank financing you may have. Your overhead will drop substantially as the LCC eliminates any interest expense. So you could lower prices, become more competitive, and still make larger and larger profits. The LCC quickly expands up your chain of suppliers, dropping their overhead and their prices. The net drop in retail prices soon becomes very large. It is a well-researched fact that 30% to 50% of retail prices consist of overhead created by the cost of capital in the supply pipeline. Imagine the competitive edge LCC businesses will have over others who fail to see the advantages of interest-free capital.<sup>21</sup>

Where does this interest-free capital come from? Monrobey explains that just as American Express or Thomas Cook always have a large amount of cash which they can invest from the sale of their travellers' cheques because of the days or weeks which elapse between the time a customer buys the cheques and the time he or she spends them, a LCC has a lump sum too as there is always be a period between the moment a member's national currency becomes electronic capital and the moment the electronic capital is converted back to cash to purchase something a member needs from a supplier outside the system. "As the system grows, the electronic capital begins to have a life much longer than the the life of simple traveler's checks.... this greatly increases the average time each cash dollar is at the disposal of the LCC for interest-free financing" Monrobey says. In effect, then, a LCC aims to keep its electronic credits circulating among its members for as long as possible before they are converted back to cash and, by linking individual LCCs, the Dynamic Capital Network stops credits leaking from the system even if they are spent out of town. By early 1996, however, Monrobey was still some way from establishing a viable system. Not one of the LCCs was really working, he told me, and none had more than fifty members.

Monrobey is very critical of the WIR which he says is not a good model for the rest of the world and is only able to continue because the Swiss are enormously self-disciplined in the way they think and work. He claims that the rate at which Wir circulate has been kept very low under pressure from the country's banks. As a result, the prices charged by member-firms have not gone down in the way they would if the system had been working well because of the interest payments it would have enabled members to save. Too many members, he says, build up large surpluses of Wir which they use to build properties to rent. Construction and the restaurant trade are the activities which underpin the system, he says.

Current proposals for a mutual credit network in Britain seem simple by comparison with Bor's. They were developed in the mid-1980s in complete ignorance of the WIR by

Christian and Diana Schumacher, the son and daughter-in-law of the author of *Small is Beautiful*, Fritz Schumacher. However, neither has had time to follow the idea up and so far, no system has been established, although talks took place with local authorities in the Sheffield area in 1994 and a hunt for market-research funding is going on. What the couple suggest is that businesspeople in a particular area should set up a committee which would determine how many 'bonds' each of their companies should be allocated by the rest of the group <sup>22</sup>.

These bonds, which would be interest-free for three months and have parity with the national currency, could only be spent with other members of the group, exactly as with WIR. At the end of every three-month period, however, members would be obliged to bring their total holding of bonds back to its original figure. So if they had sold more to the rest of the group than they had bought from it and had a surplus of bonds in their account kept by the central committee they would receive cash for the surplus amount. On the other hand, if they had sold less to the group than they had bought, they would be required to pay cash to cover the shortfall. As the total cash sum due to accounts in surplus would be exactly equal to that received from the accounts in deficit, the committee would not be required to do any balancing itself unless a business in difficulties failed to remit cash to cover its shortfall.

"The quarterly repayments ... give a regular opportunity for the scheme's administration to detect problem signs in advance of a major crisis and for help and advice to be given" the Schumachers write in their project proposal. "If a member business collapses, its outstanding debt to the system would be legally recoverable in the same way as other liabilities. If this were not possible out of then proceeds of liquidation, then guarantees under [a mutual cross-guarantee arrangement] would have to be called." In other words, all the remaining members of the system would share the loss.

The Schumachers' aim in designing their scheme was to enable a network of inter-linked businesses to grow up in a particular area so that if one of them failed, perhaps because an outside customer had switched his orders for components elsewhere, there would be a high probability that other opportunities could be found. "Where there are already many businesses trading, these businesses themselves generate new business opportunities for other businesses and vice versa" they write. "Equally, where there are few businesses, then the possibilities to start new businesses are correspondingly fewer." They argue that the bonds would encourage businesses to place their orders with suppliers in their own areas and thus foster business development there.

Although the Schumachers mention that bonds would be of considerable help to businesses unable to raise adequate working capital, they deliberately avoid saying that banks would lose business as a result of the scheme for fear of alerting a powerful opposition. Nor do they stress how much interest participants might save.

"We've checked out the legal aspects as far as possible and it seems that there are no problems there" Diana Schumacher told me. "As a result, I don't see how the banks could stop a local trading bond scheme being started but it seemed a good idea not to provoke them too much." In view of Hank Bor's experience, this seems wise. A really effective alternative economic system will inevitably damage the profits of one of the most powerful groups in the world and their reaction to it is liable to be frightening and extreme.

How would the Schumachers' trading bond organisation differ from the business barter networks which have been operating for thirty years in the US and are now spreading in Britain and Ireland? The answer is very considerably, largely because of the difference in the motives of the people behind them. The commercial networks' aim is to make a profit for their proprietors rather than to boost business in a particular area. They usually charge a joining fee of £200-£300 and a 10% commission on each purchase. Their rules require all trades between members to be passed through them so that they can take their cut although they generally try to find a customer for whatever stock or services a business wishes to sell or a supplier of whatever it wishes to buy. The barter networks also limit the extent to which a company can take goods and services from the network without balancing it by supplying another member. "If we were doubtful about the saleability of a business's product we would make it an associate member and not allow it to purchase through the network until it had made a sale" says Pat Naismith, a co-founder of the Irish barter network, Contranet.

No commercial barter organisation would have reservations about extending membership to multinational corporations. Indeed, it was to facilitate giant companies that the first US networks were set up<sup>23</sup>. Moreover, although they might have a local base, they would see nothing wrong in arranging deals anywhere in the world. In short, commercial barter networks are part of the world economy rather than a means of promoting a local or regional one.

WIR's website is at [www.wir.ch](http://www.wir.ch), e-mail [basel@wir.ch](mailto:basel@wir.ch). The street address for the main branch is Auberg 1, 4002, Basel, Switzerland., tel. 061 277 9111, fax 061 277 9239.

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PANEL: The spread of Bartercard, a commercial bartering organisation  
by Richard Douthwaite (February 2003)

Bartercard, the biggest commercial barter company in the world, operates very much along LETS lines except that all its members are businesses. The explanation on its website of the way it works could almost have come from any of the thousands of articles written about LETS .

Bartercard member A needs to have his car serviced. He contacts Bartercard member/mechanic B who conducts the work. The final payment is 250 Trade Dollars. Member A produces his Bartercard. Member B seeks authorisation from Bartercard via the 24 hour telephone service. Bartercard debits 250 Trade Dollars from member A's account and credits it to member B's account. Member B may then use his Trade Dollars to purchase any number of products or services from other Bartercard members.

Unlike LETS, however, Bartercard has clear and enforceable rules about debt and these, together with the fact that it believes in charging serious money for its services,

has enabled it to expand from its base in Australia, where it began in Brisbane in 1991, into nine other countries in less than ten years. It had 15,000 members in Australia in 2000 and a similar number in the rest of the world. Its joining fee in Britain that year was £795 plus VAT, and it charged a 5.5% commission in sterling and a 0.5% commission in trade dollars to both parties on each trade made through its system. This meant the company had money to employ staff, who are said to be of high calibre. It assigns an account manager to every batch of 100 accountholders to help those who find they have too many trade dollars or a high level of debt and to advise those who aren't trading very much.

In the UK, new accountholders are automatically allowed an initial £5,000 line of credit but the firm's account managers can vary this or freeze trading altogether. The firm is constantly trying to recruit but on a selective basis so that gaps in the range of goods and services available for trade dollars are filled and there aren't too many accountholders in one trade category in order to avoid excessive competition between them. Ideally, new entrants should have excess capacity, operate in a fairly broad market, a good reputation, and reasonably high profit margins. All trades have to be entirely in trade dollars and have to be authorised using a free telephone number before being recorded. Each new recruit is given a Bartercard - an embossed Visa-like charge card - and a zip-zap machine in which to place other members' cards to record transactions. This equipment might soon be obsolete, however, as the company announced in April 2001 that it was supplying 1,200 members in New Zealand with 'eftphones' - electronic funds transfer phones, which eliminate all paperwork.

In each country in which it operates, Bartercard publishes a large, attractive directory of the goods and services available from its accountholders (it would be wrong to call them members). These are largely financed by accountholders' advertisements. Bartercard also organises local trade days to enable accountholders to meet. However, it but does not rely on these two avenues to increase turnover through the system - its account executives are constantly trying to set up deals between accountholders because of the commission the company earns. Indeed, looked at in this way, Bartercard's charges aren't high - most firms would be happy to pay 10% commission to an agency for the orders it generated.

The company claims the following benefits from opening an account:

- \* Extra business, as the Bartercard staff are likely to introduce new clients.
- \* Interest free credit, and consequently, lower borrowing costs
- \* National currency is conserved as transactions do not involve the exchange of cash apart from the commission.
- \* No problems with debt collection as Bartercard will seek to get an accountholder's customers to join, thereby taking the responsibility for getting payment off its shoulders provided transactions are authorised.
- \* A marketing advantage over non-accountholding competitors.
- \* Less exposure to market downturns.

In 2001, the most recent year for which figures were available in early 2003, the company had 40,000 member-firms around the world. These were serviced by 1,000 staff and a turnover of \$1,400 million was achieved during the year. Bartercard's website is at [www.bartercard.com](http://www.bartercard.com).



However, not far over the border in the Austrian Tyrol, another enthusiastic supporter of Gesell's ideas had been following events closely. He was Michael Unterguggenberger, the mayor of Wörgl, where local tax payments were seriously in arrears and the official treasury was in crisis because 1,500 of the town's 4,300 inhabitants were out of work. The type of auxiliary currency used in Schwanenkirchen - technically known as Stamp Scrip - seemed the answer and, after negotiating a loan from the local Raiffeisen (credit union) savings bank, the mayor printed notes with a face value of 32,000 Schillings in denominations of 1, 5 and 10. Only a third of these were ever put into circulation. In August 1932, the scrip was used to pay half the wages of the council staff including the mayor himself and, because the businesspeople of the town knew it could be used to pay local taxes they reluctantly accepted it in payment for goods, the fear of losing sales to competitors bringing stragglers into line. As the scrip, like the Wära, had to be stamped each month to maintain its validity. it was passed quickly from hand to hand, generating a rapid increase in trade. It was, in fact, spent in preference to national currency and in its first year, according to a 1952 German account<sup>24</sup> of the experiment, each local note changed hands 463 times on average whereas a typical national note was involved in only 213 transactions. Quite soon only the railway station and the post office would not accept the local money.

The traders took no risk in accepting Wörgl scrip as it was completely backed by the national currency loan which the mayor had obtained from the savings bank and left on deposit there. This enabled anyone holding scrip to swap it at any time for 98% of its face value in national currency. Very few people appear to have made the exchange because at 2% it cost more to do so than to pay the 1% monthly re-validation fee, but any local money which was returned to the bank or paid to the council in taxation was immediately re-launched into circulation in the town.

Just as in Schwanenkirchen, the effects of the 'auxiliary money' were impressive. In the first month, 4,542 Schillings were paid off in tax arrears, allowing a new public works programme employing fifty men to begin, their wages paid entirely in scrip. In the second half of 1932 Wörgl spent 100,000 Schillings rebuilding and asphaltting four miles of streets and extending the sewerage system, the entire cost being covered out of overdue tax receipts. The savings bank benefitted too and deposits exceeded withdrawals for the first time for many months. In January 1933, the town began to build a ski jump and a reservoir. Both were completed without incurring any debt.

As one might expect, other towns started planning to copy the scheme and although the Austrian Government had not been hostile to the Wörgl experiment, the Central Bank felt it had to prevent similar systems from becoming widespread for fear it would lose control over the amount of currency in circulation nationally and hence be unable to prevent inflation. It instituted legal proceedings against Wörgl council and on 1st September 1933, the scheme was stopped, exactly 13 months after it had begun. "Wörgl had a community currency but it was not a personally-issued currency like LETS; its issue was institutional" Michael Linton comments. "It was just a substitute for the national currency issued by a local government rather than by the Austrian central bank. All of the many

such local money schemes in the past have merely been small scale versions of national currencies and they don't work any better at the local level than they have at the national. Because they are kept scarce like national currency they create a climate of competition which still leads to local unemployment and local rich and local poor. More seriously, they are also inherently less stable than national currencies and prone to irrecoverable collapse, so the authorities were in some ways quite right to suppress the Wörgl one although almost certainly they did so for the wrong reasons."

The story now moves to the United States where several hundred communities ranging from villages to the state of Iowa and cities such as St. Paul, Minnesota, either issued their own scrip or seriously considered doing so. The pioneer was Hawarden a town of 3,000 people in Iowa, in October 1932 but unfortunately the promoter, Charles Zylstra, departed from the Wörgl/Wära model and did not set up a redemption fund to guarantee the issue. Instead, he proposed that every person who received a scrip note with the face value of a dollar should stick a special 3-cent stamp on it before passing it on and that after it had been used for 36 transactions and had collected \$1.08-worth of stamps it could be redeemed for a US dollar.

Unfortunately, there was no way apart from public honesty to ensure that a stamp was applied after every transaction. Moreover, although the scrip itself was dated in an effort to prevent hoarding, the absence of dates on which stamps had to be applied meant that there was no incentive to pass the money along as quickly as possible. In fact, as the scrip was used to pay part of the wages of men engaged on unemployment-relief projects, the whole scheme amounted to little more than an optional tax to meet the cost of the work which was paid by those using the local money.

Despite its problems, Zylstra's system was adopted in several towns with mixed results. Eventually, however, it was replaced by closer approximations to the Wörgl scheme as that became better known, notably through the efforts of a professor of economics at Yale University, Irving Fisher, who even published a manual on how to set up and run a stamp scrip system in 1933<sup>25</sup>. Fisher described at length a type of scrip proposed for the city of Reading, Berks County, Pennsylvania, in which the note had fifty-two squares on the back, each printed with the date of consecutive Wednesdays in the year after its issue. Special two-cent stamps were stuck in these squares by whoever held the note on Tuesday night before they could be used the following day and by the end of the year, a sum of \$1.04 would have built up to allow the note to be redeemed at par and leaving 4 cents to cover expenses. According to newspaper reports of the time, scrip of this type was widely adopted.

By 1933, more than 300 communities had introduced some form of barter system, scrip or local currency to try to overcome the nationwide currency shortage. Tenino in Washington State even used wooden money - it printed 25c, 50c and \$1 tokens on spruce wood after the local bank collapsed, freezing everyone's assets. \$6,500-worth of timber coins were put into circulation but when the day came for them to be redeemed in US currency, only \$30-worth was presented - coin collectors and tourists had taken the rest, leaving the town council with enough cash to buy the bank and open it again.

"Scrip permitted if soundly backed" was the headline in The New York Times on 10th January, 1933, but it was too good to last. Three months later, on March 4th 1933, President Roosevelt forbade any further issues, although existing schemes were allowed time to wind themselves up. It was not that the government had any objections to scrip being issued to create jobs but it had been advised by Professor Russell Sprague of Harvard that the US monetary system was being democratised out of its hands.

Within the past few years, however, scrip has re-appeared in at least 21 communities in the United States as a result of the work of Paul Glover in Ithaca, which is described in the panel. However, the most recent version of stamped scrip I know of was issued in the small historic French town of Lignieres-en-Berry in August 1956 in an effort to generate more business and thus counteract the town's decline: its population had halved to 1,700 in the previous fifty years and of those who remained, 300 were over seventy<sup>26</sup>. Initially, the scrip, which was issued by a group of the town's traders, was exactly like that in Wörgl. It was backed by national currency into which it could be converted at 98% of its face value and had to be revalidated each month with a stamp costing 1%.

The early results were encouraging but the project started to enjoy real success when, in April the following year, wage earners were told that if they converted their money into scrip, they would be given 5% extra. Naturally, it was necessary to stop people who bought scrip this way immediately converting it back for a quick profit and the new notes were stamped with their date of issue so that they could only be changed into francs at the 98% rate after four months: if converted earlier, a bigger discount applied. This deal proved very attractive to the people of the district because, if they converted their cash into scrip and spent it immediately, they were effectively getting a 5% discount from the traders. However, if they simply held on to the scrip for four months and then stamped it to bring it up to date, they could convert it back to cash and earn a 3% rate of interest for the period. As a result, the new money was widely used in the town and tended to circulate for at least four months before being cashed in.

Many communities moved to copy the system, alarming the Bank of France so much that in July 1957 it sent a team of police specialists to investigate what it saw as a virus about to contaminate the whole country. Laws carrying penalties of up to two years' imprisonment and a 20 million franc fine were passed to frighten off people planning similar systems but Lignieres scrip continued to circulate at least until the early 1960s and another small town, Marans, introduced a variant of it in March 1959 without anyone being prosecuted.

Scrip - but not of the stamped variety - is currently being used in some Argentine provinces as a result of a decision by Roberto Romero, the governor of Salta in 1984 to give public employees and creditors the choice of being paid in promissory notes immediately or in national currency some days later. As prices were rising rapidly at the time, many employees chose not to wait and accepted the new notes because the banks would exchange them at par for national currency if necessary anyway. However, in order to encourage people not to exchange them, Romero organised a lottery offering

prizes to the holders of the notes bearing the winning numbers. The provincial government naturally accepted the new money for the payment of taxes and shops and businesses rapidly began to accept it too. Three other provinces took up the idea and have since issued their own money on similar lines.

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#### PANEL: WHY DO GOVERNMENTS LET BANKS CREATE MONEY?



*Did President Kennedy's decision that the US government should issue its own notes like this one lead to his assassination? Some conspiracy theorists think so.*

One of the most perplexing problems future economic historians will face will be that of explaining why almost every 19th

and 20th Century government allowed private banks to create almost all the money their citizens used even to the extent of requiring their state treasuries to pay interest for the loan of money private banks had created merely by making entries in their account books when the governments could have created an equivalent amount of currency the same way themselves and financed, interest-free, whatever they wished to do. At the very least, the practice constituted - and constitutes - a massive subsidy to the banking sector and to the wealthiest groups in society.

According to the late John Hotson, who retired as Professor of Economics at the University of Waterloo in Canada in 1992, roughly 95% of a typical industrial nation's currency is created by privately-owned banking organisations granting loans to their customers<sup>27</sup>. One of the few occasions on which governments put interest-free money into circulation is when their central banks decide they need new premises and simply issue the currency to pay for their construction.

At almost all other times, governments feel constrained to borrow all the funds they need and therefore pay interest on money the private banks have created. Quite why governments feel unable to create money for, say, public capital projects apart from central bank buildings and have run up massive National Debts in their determination not to do so has never been adequately explained, although bigots with hypotheses abound. For example, neo-Fascists claim it is due to a Jewish conspiracy and sell books about it through badly-printed mail-order catalogues alongside works which claim that the Holocaust never happened. An equally silly, but perhaps less dangerous theory comes from the Order of St. Michael in Canada, where Social Credit (the idea that a society should create its own purchasing power) was a powerful political force in the 1930s. The Order's members, who call themselves 'slaves of Mary' and 'Catholic Patriots' working 'to deliver nations from Communism and the banking dictatorship', hold the Freemasons responsible but, like the Fascists, fail to produce a shred of evidence.

Three extremely serious consequences flow from allowing banks to create almost all a country's money by issuing loans for which they charge interest. The most pernicious is that the need to pay this interest creates the capitalist system's constant need for

*Short Circuit* by Richard Douthwaite: Chapter Three

economic growth and thus makes it unsustainable in a finite world. We will be discussing this more fully in the next chapter when we consider how interest should be managed in a local economy.

The second consequence of their delegating the power to create money is that governments have too little control over the amount put into circulation. For example, if the banks issue so many loans that the economy overheats and the inflation rate rises, one of the few ways governments can respond is to raise interest rates by selling government stocks to mop up the excess funds - in other words, by borrowing some of the excess money themselves. This can seriously distort the distribution of national income because if the interest rate rises above the percentage rate at which the gross domestic product is growing in money terms, the wealth of lenders begins to increase faster than that of borrowers and the total debt owed to financial institutions by everyone in the country, including companies and the state itself, grows in relation to GDP. This is exactly what happened in Britain in the 1980s: because inflation was suppressed by raising interest rates and real growth rates were low, the proportion of national income going to moneylenders significantly increased as we noted in Chapter One.

The third consequence of not issuing money is that governments cannot do what Paul Glover has done with his Ithaca Hours and the Westport LET system with its Reeks - pay to get things done without incurring a debt on which interest must be paid indefinitely. Only two places in the world have issued their currencies on a non-debt, non-interest basis - Jersey and Guernsey - and the results have been remarkable.

The Guernsey system dates back to the period just after the Napoleonic Wars which had seriously damaged the island's economy because they prevented smuggling, the people's most important income source. As a result, according to Olive and Jan Grubiak's 1960 pamphlet, *The Guernsey Experiment*<sup>28</sup>, the island was in a distressed state: "The deep roads ... in wet weather became muddy rivers between steep banks. The town was ill-paved and unattractive, and there was not a vehicle for hire of any kind on the island. There was no trade, nor hope of employment for the poor. Worst of all, the sea was encroaching the land, and washing away large tracts of it, thanks to the sorry state of the dykes."

There seemed little possibility that the island's government would be able to erect the necessary sea defences, which were expected to cost £10,000, since the £2,390 interest bill on Guernsey's public debt of £19,137 (equivalent to approximately thirty times that amount today) absorbed all but £600 of its annual income and, in view of the people's poverty, there was no scope for further taxation. However, a committee was set up to see how money could be raised for a smaller project - the erection of a covered market. This reported back in 1816 with the proposal that the cost of the market and various other public works be met by issuing 6,000 States Notes, each with a face value of £1, to circulate alongside the £50,000-worth of banknotes then in use on the island. The idea was accepted although notes worth only £4,000-worth were initially issued, and since it was proposed to redeem them with British money in stages, the arrangement amounted to little more than an ingenious interest-free way of borrowing the funds to finance the island's capital works programme. However, other tasks including the sea defences and the construction of schools were taken on, and further note issues made, so that by 1829, States Notes worth £48,000 were in circulation.

In 1826 a complaint was made to the Privy Council in London that the States (as the Guernsey Parliament is called) had no right to issue currency without royal consent. The States submitted a lengthy report to the Privy Council on the ways in which the local currency had been spent which demonstrated that the income from the projects it had financed was more than enough to redeem the notes issued. Satisfied, London took no action. The complaint was probably instigated by the promoters of the Old Bank which set up in Guernsey the following year. A second private bank, the Commercial, opened in 1830 and the two 'flooded the island with paper money.' The States held discussions with both banks and, as a result, withdrew £15,000-worth of its own notes from circulation and agreed to keep the total issue of States notes below £40,000. This agreement remained in force until 1914.

During the World War I, the local banks were prohibited from increasing their note issue while the States was under no such restriction and issued a further £100,000-worth of its currency to meet the demand. Since then, the two local banks have become part of British high-street banking chains and have ceased to issue currency - instead, British notes circulate in Guernsey alongside the island's own.

Today, if someone uses a bank on the island to cash a cheque or draws money from an automatic teller with a plastic card, they will receive Guernsey currency which the banks obtained from the States' Treasury in exchange for a sterling cheque for the same amount. The treasury then returns the sterling cheque to the bank which issued it to be lodged in a deposit account in the States' name. Each Guernsey note in circulation is therefore backed one-to-one by its British equivalent.

"We've got about £14m.-worth of notes and coin in circulation at the moment" Michael Browne, the States' Supervisor told me in early 1994. "It fluctuates a little with the seasons. It constitutes a £14m. interest-free loan for us - in fact, it's a loan we collect interest on. The payments we get on it from the banks make a small but useful contribution to the island's budget"<sup>29</sup>.

Although Browne says it would be possible for the States to spend the sterling it receives from the banks in payment for its currency, it no longer does so. "Our policy on this island is, if we can't afford a new school building or something like that, we don't borrow, but wait until we can pay for it before we put it up. As a result, we have almost no public debt, apart from some money owed by the state trading boards which run the telephone and electricity systems. Even that is covered by sinking funds" he explains.

According to Browne, Guernsey's absence of debt is as a result of its conservative financial policies and the main reason why the island's income tax rate is only 20%. He regards the States' refusal to spend the funds obtained as a result of its currency issue simply as prudent book-keeping and suggests that the success of the 'Guernsey experiment' is largely a myth.

With the presumption of an outsider, I suggest he is mistaken. There are two ways in which Guernsey could handle the sterling it receives from the sale of its currency. One would be to spend a high proportion of the £14m. it has already collected on capital works immediately, leaving just enough on deposit in the banks to ensure that a Guernsey pound can always be exchanged for a British one. But if this course was followed, the amount of capital spending the currency issue made possible in future

would fluctuate wildly from year to year as it could never be more than a prudent proportion of whatever amount of additional island currency had entered circulation during the previous twelve months. In some years, there might be no increase. In others, the amount of local currency in circulation might even decline because of a fall in economic activity, requiring the island not only to halt its capital programme but, in the event that the Guernsey pound's fractional sterling backing proved inadequate to cover the withdrawals, to use some of its tax revenue to pay interest on British pounds borrowed to ensure the exchange rate was maintained. In other words, basing the island's capital spending on how much more local currency went into circulation in a particular year would prove highly destabilising: the States would spend more when the island was booming and have to cancel its capital programme and slash its current spending when it went into decline.

The second way open to the island is to do exactly what it does - to limit itself to spending the interest on the capital sum that issuing its own currency creates. This avoids the destabilisation entailed by the first course and ensures that a relatively steady amount of capital spending can be undertaken annually. After all, if the States are able get 7% interest on their £14m. sterling deposit, this will earn them enough to cover a third of its £3m. capital budget year after year.

Jersey issues its currency in the same way. Could counties and towns elsewhere follow suit and enjoy similar benefits? There seems no reason why not because the Guernsey arrangement suits both the island and the banks. Lending is any bank's most important source of income and whenever a bank hands currency notes over to a customer, both its assets and its liabilities are reduced, cutting its capacity to make revenue-earning loans. When it hands out Guernsey currency, however, the sterling it used to buy them is deposited in another of its accounts, so there is no fall in the bank's assets and hence in its capacity to make loans. Guernsey, as we have seen, benefits too. Someone appears to be getting something for nothing - how do the benefits arise? The answer is that they come from the creation of £14m. which would otherwise have not existed by essentially the same process that banks use to create money when they grant a loan facility on which the customer writes cheques. So, given that both sides benefit, the only obstacle likely to arise would be if central banks objected to county councils convincing their residents that it was in their interests to insist on getting county currency whenever they withdrew cash from their banks.

Alternatively, county or town councils could create their own money by following the Wörgl model almost exactly: working in close collaboration with local businesses, as local authorities did whenever scrip was issued in 1930s America, they could arrange loans from their local credit unions and leave them on deposit so that anyone who wished to exchange their local money for national currency could do so on payment of a small fee. Wörgl's monthly revalidation stamping system could also be adopted to ensure that the local money was always spent in preference to that from outside.

The benefits to any council adopting either approach are clear: no longer would it have to depend almost entirely on central government or on bank borrowings to finance low-income housing, industrial starter-units, a library building or a better swimming pool. Local builders would get more work - indeed, if the council was wise, it would only embark on a big spending programme when there was spare capacity in the local construction trade. Even the national government would be better off as a result of

increased tax revenues and lower social welfare claims. But would these gains be sufficient to enable it to ignore dire warnings about inflation which would undoubtedly come from its central bank or treasury department upset by the loss of some of its powers?.

John Hotson was associated with the Committee on Monetary and Economic Reform, COMER, which describes itself as 'composed of economists and non economists, both academic and non-academic, whose goal is a sustainable financial system in a sustainable world economic/ecologic/social system.' COMER's website, at [www.comer.org](http://www.comer.org), contains many interesting articles. E-mails can be sent to [comerpub@comer.org](mailto:comerpub@comer.org). The street address for COMER is: COMER Publications, 245 Carlaw Ave. Suite 107, Toronto, Ont. CANADA M4M 2S6. Membership costs US\$45 per year for non-Canadians.

COMER is one of the few groups in the English-speaking world doing serious work on monetary reform. It has links with Economic Reform Australia which is working on similar lines. Economic Reform Australia's street address is P.O. Box 505, Modbury, SA 5042, and Frances Milne, co-editor of the newsletter, can be reached at +61 29 810 7812. An unsurpassed source of historic material on microfiche on free money and free banking is the Libertarian Microfiche Publishing Company, 35, Oxley Street or P.O. Box 52, Berrima, NSW 2577. Another good source is The Monetary Freedom Network (website in German), c/o Siegfried H. Schwenke, Wissmannstrasse 15, D-12049 Berlin. Tel. 030 6213861.

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Local currency systems can avoid the conflict between money's function as a medium of exchange and as a store of value if they develop different currencies to do different jobs. A LETS unit can be a satisfactory medium of exchange. It can also fulfil money's third function - that of being a unit of account - because it allows people to keep track of how they stand with each other. But by no stretch of the imagination can it be considered to be a store of value and anyone who builds up a large surplus of units in their account so as to be able to obtain goods and services when they retire in twenty years' time is a fool because no-one can guarantee that the system will still be operating then. This is both a strength and a weakness. This deficiency is a serious weakness with LETS because people earning more local units than they can immediately spend stop accepting them so readily and thus damage the system for everyone else. However, rather than trying to enable LETS units to duplicate all the functions of national currency, it is probably better to create a local store of value in some other way.

Robert Swann, a co-founder of the Schumacher Society in the United States and one of North America's leading thinkers on economic alternatives, has taken part in two attempts to devise currencies which are also stores of value. One of these was the 'Exeter Experiment' - the successful launch in Exeter, New Hampshire in 1972 of the Constant, a currency devised by Dr. Ralph Borsodi, a leader of the decentralist movement in the United States and the author of a book, *Flight from the City*, which encouraged a back-to-



the-land movement during the Great Depression in the 1930s. Despite his background, however, Borsodi, as his book about the experiment *Inflation and the Coming Keynesian Catastrophe*<sup>30</sup> reveals, was motivated more by what he saw as the dishonesty, theft and embezzlement that inflation involved than any thoughts of achieving greater community self reliance: indeed, prompted by President Nixon's decision a few months earlier to break the dollar's link with gold, he did not intend to launch a local currency at all but was running a small-scale experiment to demonstrate the viability of a new type of national or international currency.

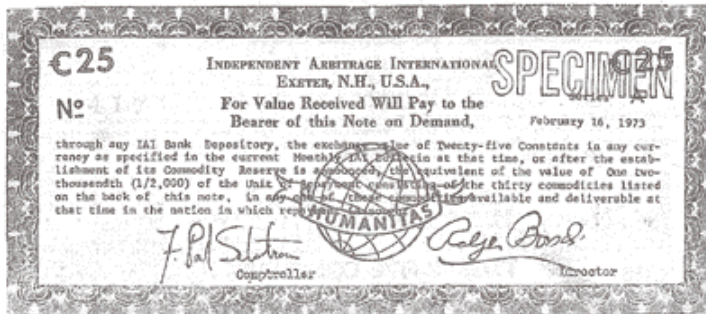
The first Constants were sold on June 21st 1972 at a conference organised by the School of Living, an organisation Borsodi had founded and for which Swann then worked. Borsodi deposited the proceeds, and those from subsequent sales, with two banks in Exeter so that they had funds to cash any Constants presented to them. Alternatively, if the holder wished, the banks would lodge the Constants in a special account in the holder's name. The value of a Constant was based on that of specific amounts of thirty basic commodities, including gold, silver, iron, aluminium, lead, copper, nickel, tin, zinc, coal, oil, wheat, barley, rice, rye, oats, soya, maize, wool, cotton, cocoa, coffee, copra, hides, jute, rubber, cement, sulphur and sugar, and holders could sell them at any time for the total of whatever the constituents were then worth: Borsodi's organisation, Independent Arbitrage International, recalculated the Constant's underlying value monthly and let the banks know. "People who bought Constants from Borsodi's organisation at, say, \$2.18 a 10-Constant note were surprised later when the bank paid them \$2.19 for it" a local newspaperman, Mel Most, wrote after the experiment had been running for seven months.

As Borsodi realised, the Constant was potentially far more than a way of protecting one's purchasing power against commodity-price inflation because, if firms had begun to quote prices in Constants rather than dollars, and banks had offered Constant loans, there would have been a real possibility that the new units would have proved so much more reliable than the steadily depreciating dollar that the national currency would have ceased to be used. Before this could happen, however, the experiment was terminated a year after it had begun because Borsodi thought he had proved his point, namely, that a commodity-based currency was entirely workable. He did not feel that at his age - he was then 86 - he could take on the responsibility of setting up and running an international currency-issuing bank.

For our purposes, the significance of Borsodi's experiment is that a small town - Exeter had a population of almost 9,000 people at the time - readily adopted an alternative currency despite the fact that it was not backed by the local government as had been the case in Wörgl. "Thousands of dollars[-worth] of bank money orders and personal checks for Constants have circulated like money and been used for buying and selling, and have been cashed [by banks]" Most wrote. "Even the staid, wealthy Philips Exeter Academy paid in Constants for thousands of dollars[-worth] of printing and supplies." Swann adds 31: "The Town of Exeter accepted them as payment for parking fines. Very few people ever redeemed them for dollars at the bank." Even when the experiment ended not all

Constants came back: many were kept by their holders as souvenirs. No legal problems over issuing the notes emerged.

With the exception of silver and gold, Borsodi never intended that his proposed Bank for the Issue of a Stable Currency (BISC), for which the Exeter Experiment was a dummy run, should buy actual physical stocks of the thirty commodities backing the Constant because of the costs and problems involved in storing them, particularly perishables like wheat and rice. Instead, he proposed that BISC buy commodity futures with part of the money it received for Constants and that it should sell the futures and buy replacements as they approached maturity. The rest of the purchase money was to have been invested in securities or issued as loans and the income used to cover BISC's administrative costs. The bank was likely to prove highly profitable, Borsodi wrote, because only fractional commodity backing for the Constant would be necessary.



Today, however, Swann thinks that energy is a better way of backing for a currency than a collection of commodities because the long-run price of every product is related to the amount of human, animal,

renewable and fossil energy that went into making it. One of his proposals would, in effect, turn electricity producers into currency-issuing banks. "Almost every community has renewable resources for producing energy" he writes in one of the chapters he contributed to *Building Sustainable Communities*<sup>32</sup>, a book on the methods that communities can use to become more self-reliant published in 1989. "All such energy resources can be converted into electricity or measured in kilowatt hours." He envisages community companies established to develop these resources financing themselves by selling energy notes. "For example, if local utility rates are presently 10 cents a kilowatt hour, then one dollar would buy 10 kilowatt hours for future delivery. Owners of the notes, sold in lots of 10, 50, and 100 units (comparable to current values of one, five and ten dollars) would hold them for future redemption no matter what their future dollar rate.... The community organization or corporation would issue the notes only in amounts equal to their projected output of electricity, thus avoiding inflation of the currency."

Since the notes would always be worth the current price of the amount of electricity they represented, they would be accepted instead of national currency by people living in the generating plant's service area in payment for goods and services, particularly if, as with the Constant or the Wörgl schilling, a local bank stood ready to redeem the notes for cash. Although Swann has not tried such a system out, he was associated with the successful launch of the Deli-Dollar and the Berkshire Farm Preserve Note which are discussed in the next chapter and which share the sale-of-product-in-advance feature with

his energy note idea. As a result, there is no reason to believe that an energy-backed currency would fail.

Wära, stamp scrip, Hours, Time Dollars, Wir, Reeks, Constants - a wide range of currency systems is available for a local economies to use. Which would suit a social field with a population of a few tens of thousands of people? The answer is 'Most of them' because each excels in specific functions and only a range of systems can fulfil them all. The first step is undoubtedly to get several LET systems established, each limiting its membership to about 250 people so that the necessary social controls operate well.

Then, for those who neither need nor want to join a LET system because they have adequate national currency incomes but would like to use their leisure to help others, a Time Dollar-type system should be considered. Business people will want their own WIR-type system in which their unit and the national currency are equal in value so they do not have to distinguish between the two in their books. These business systems will have to control the amount of credit they allow much more stringently than would a LETS because their membership is likely to be larger and less amenable to social pressures.

There is no reason why a district should not also have its own equivalent of a national currency which would be accepted by everyone for all transactions. This could be a store-of-value commodity-based unit, Borsodi-style, operated by a local group<sup>33</sup>; or an energy note, backed by one or more power producers; or a national-currency-backed banknote issued by the local council on the lines of that in Guernsey. Indeed, there is no reason why a single area should not have all three in operation simultaneously. There would be some inconvenience, certainly, but computerised cash-registers would minimise it and shops in border areas at present readily cope with keeping three or four currencies in their tills. In any case, if a combination of several local currencies and a national or international one works significantly better than a national or international one alone, should the fact that traders would need to do a little extra book-keeping be allowed to prevent it starting up?

In the past, of course, several different types of money could generally be found in use in the same place at the same time. Some ancient civilizations used one form of money - generally silver - for long-distance trade and another, perhaps barley, as their unit of exchange closer to home. This meant that, unlike the mainstream system today, a shortage of external currency did not prevent internal trading going on<sup>34</sup>. In the Middle Ages, coins from several countries would often be used to make a single payment, the value of each type based on the weight of precious metal it contained. Later still, notes issued by innumerable private British banks circulated alongside sovereigns from the Royal Mint and it was only in 1844 that the Bank of England, a private company until 1946, was given the exclusive right to issue paper money in Britain - previously its monopoly had extended just sixty-five miles from London. This limited monopoly allowed about twenty Scottish banks to issue their own money in 1800, each backing its notes with its own gold reserves. This system was very stable - losses to note-holders and

depositors amounted to only £32,000 between 1727 and 1844, the entire period they were allowed to operate, and Scottish notes were preferred to English ones as far south as Yorkshire<sup>35</sup>. In Ireland in the 18th Century, the currency consisted of a mixture of foreign coins, bankers' bills and notes, and locally-issued silver and copper tokens, the result of a British ban on the export of English gold and silver coins to pay for imports purchased there.

But, in common with other aspects of life, this diversity has been lost. The money supply has been standardised and nationalised and although banks in Northern Ireland and Scotland still issue paper currency carrying their name, they do so as agents of the Bank of England. But it is only in the issue of notes and coin that the state has a monetary monopoly: two other more important forms of money - cheques and credit cards - still enable the banks to create spending power privately and government controls over the extent to which they do so are indirect and ineffective. Uncrossed cheques are essentially a near-currency since they can be passed from hand to hand in settlement of successive transactions. During an eleven-month-long bank strike in Ireland in the early 1970s, they allowed economic life to proceed more or less normally. Quite soon, forms of privately-created electronic money like the Mondex system tested in Swindon in 1995 may displace the state's cash and notes altogether. "Users would carry a plastic card that would let them download funds from their bank account using a mobile phone or cashpoint. The card could then be used to make purchases [by swiping it through a reader] up to the value of the sum downloaded" Giles Keating, the head of global economics at the CS First Boston bank in London explained in an article<sup>36</sup> in *The Financial Times*.

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2003 update on Mondex by Caroline Whyte

After a three-year trial in Swindon organised by HSBC and NatWest, Mastercard took charge of Mondex in 1996 and has had complete ownership since 2001. Concerns about the security of internet and cell-phone based transactions seem to have hampered its spread since then but Mondex cards are available in 80 countries where they are accepted by a variety of businesses. They seem not to have had much influence on the amount of notes and coins in use.

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Keating went on to argue that holders would be able to use their cards at home and abroad because the readers would automatically convert the currency held in the card to the one in which the purchase was priced. This would give people complete freedom to choose the currency they downloaded into their cards. "The effect would be dramatic. Smaller currencies could almost disappear - especially if there is any hint of systematic depreciation. Even larger currencies would face a substantial decline in usage if they were weak. ... Long-term credibility as a strong currency would become even more important than it is at present."

But even though state control over the supply of money and the issue of currency is at present only partial and, if Keating is right, may well disappear altogether, we can expect considerable resistance from governments to community monetary systems once they threaten the status quo: the only reason that LET systems have escaped problems so far is that they are having so little effect on what is conventionally regarded as the 'real' economy that they do not warrant the effort to close them down. But when communities get serious, the opposition will become serious too. The big banks, who are developing the electronic money systems, will not allow their power to create money to be eroded without a struggle and will find ready allies in politicians hoping to retire to a seat on their boards. Power is never given away by the powerful, it has to be taken by the weak. Consequently, if we are ever to achieve independence in our lives and communities, the right to issue our own currencies is one of the issues over which we must expect to have to fight.

### **Further Information (last updated August 2002):**

Every group considering starting a LET system should acquire a copy of The LETS Info Pack prepared by Letslink UK, (12, Southcote Road, London, N195BJ, e-mail [lets@letslinkuk.org](mailto:lets@letslinkuk.org), tel +44 (0)20-7607-7852) and available from them for £12 postpaid, or £15 to overseas addresses. This provides a step-by-step guide to setting up a system, supplies a model constitution, advises on tax and social welfare, and includes samples of existing systems' cheques and directories so that new ones do not have to re-invent the wheel. You can become a member of Letslink for £10 a year, which entitles you to receive their newsletter, email broadcast, and preferential rates for conferences and trading courses.

In Continental Europe, the Letslink function is performed by the organisation Aktie Strohalm, Oudegracht 42, 3511 AR Utrecht, the Netherlands, tel. 31-30-314314, fax 31-30-343986, email [info@strohalm.nl](mailto:info@strohalm.nl), which launched the thriving and innovative Dutch movement and has contacts with systems in Denmark, Germany, Switzerland, Belgium and France. Aktie Strohalm is the world's leading organisation looking at the ways in which the whole range of local currency and local banking systems can be developed and linked with each other to make more self-reliant local communities possible.

An increasing amount of information about LETS is becoming available on the Internet. econ-lets is the main site for the discussion of 'the economic, social and telematics issues surrounding the development of LETS'. The website at [www.lets-linkup.com](http://www.lets-linkup.com) has links to LET systems all over the world and is regularly updated.

### *Notes*

1 *Inishkillane; Change and Decline in the West of Ireland* (Penguin 1974)

2 For a painstaking account of this system see *Meitheal: A Study of Co-operative Labour in Rural Ireland* by Anne O'Dowd, Comhairle Bhealoideas Eireann, University College, Dublin, 1981

3 The quotations from Michael Linton come from talks he gave in Dublin in 1993. They have since been checked by him.

4 LETS has become a generic term covering a wide range of local currency systems and Linton therefore distinguishes between "LETSystems" which have five essential characteristics, and LET schemes, which he describes as the "committee-managed, small-is-beautiful, no-business-please (ie, no commercial motivation), politically-correct variety". The five characteristics of LETSystems are: (I) They operate on a not-for-profit basis and the costs of administration are paid by each account-holder in the local unit. (ii) All accounts start at zero and the account-holder has sole control over the movement of money in and out of his or her account. There is never any obligation to trade. (iii) Any account-holder may know the balance and the volume of trading of any other account-holder in the system, (iv) The local currency unit is equivalent to the national currency, and (v) No interest is charged or paid on account balances. There is a wide range of systems with these characteristics, as Linton encourages them to experiment. When this chapter refers to LET systems or LET schemes, it is talking about all types, including those which meet the LETSystem specification.

5 February, 1994.

6 Letter to author, 21/2/1994

7 Letter from Frank Brennan to John Bolger, 16/2/94.

8 E-mail dated 27/11/95.

9 Particulars of each barter transaction must be submitted by whoever is running the system with both parties and the revenue service unless the system has less than 100 transactions a year. See *Journal of Taxation*, 1983, and also *Standard Federal Tax Report*, 3/9/83. The law is PL 97-248, paragraph 5093.

10 Confusion often arises when the turnover of different LET systems is compared because some systems quote turnover figures derived by adding together all the changes in members' accounts, both positive and negative, thus doubling the value of trading apparently done. This is eliminated here.

11 "The Local Exchange Trading System: Political Economy and Social Audit" (MSc. thesis, School of Environmental Sciences, University of East Anglia, 1994). Copies are available from Ms. Seyfang, PO Box 18, Diss, Norfolk, IP22 3NS for £6, postpaid. *Studies of the Totnes and Calderdale LET systems* by Colin Williams of the Centre for Urban Development and Environmental Management, Leeds Metropolitan University, Brunswick Building, Leeds LS2 8BU, indicate that LETS members have below- average incomes and that the unemployed among them generally make more trades but each trade is of lower value than that of those in work and their total earnings are less. The average annual value of trading per member was £ 40 in Calderdale and £153 in Totnes, Williams found.

12 February, 1994

13 The only book by Gesell, who died in 1930, readily obtainable in English is *The Natural Economic Order*, probably in the edition published by Peter Owen, London, in 1958 although there was a Berlin edition in 1929 and an American one in 1933.

14 "Sechs-Stunden-Tag im Mittelalter", which appeared in the book *Vorwärts zur felten kaufkraft des geldes und zur zinsfreien wirtschaf*, 1931.

15 Carlo M. Cipolla in *The Monetary Policy of 14th Century Florence* (University of California Press, Berkeley, 1982).

16 Quoted by Irving Fisher in *Stamp Scrip* (Adelphi, New York, 1933), p20. *The New Republic* article was written by Hans Cohnsen who became Fisher's assistant and contributed a valuable account of the stamp

scrip movement in the US to Dieter Suhr's book on the necessity of developing a type of neutral money which encourages neither hoarding nor spending, *The Capitalistic Cost-Benefit Structure of Money*. (Springer: Berlin & New York 1989)

17 Letter to author, 11/8/94.

18 Erick Hansch, Initial Results of WIR Research in Switzerland (International Independence Institute: Ashby, Mass. 1971).

19 *50 ans Cercle economique WIR*, WIR Basle, 1984.

20 Ibid.

21 *DCN-Passport to Interest Free Living*, (n.d).

22 Local Trading Bond Scheme: *Proposal for a Feasibility Study* (Schumacher Projects: July 1993).

23 See *For Polygamy in Currency* (Abraham Rotstein, University of Toronto, and Colin A.M. Duncan, York University, Ontario n.d.), which states that the growth of barter networks in the US was partly due to anti-trust laws which may forbid direct barter between firms but not if mediated through a third party. 'Several of the largest transnational corporations in the world are members of their own barter networks' they say. Another motive was tax avoidance and there were some spectacular tax and other frauds in the past although the networks are now trying to improve their image.

24 Fritz Schwarz, *Das Experiment von Wörgl*, (Genossenschaft Verlag: Berne 1952). Cited by Margrit Kennedy in *Interest and Inflation-Free Money*, (third edition) (Permakultur Publikationen, Steyerberg: 3rd edition 1990).

25 Stamp Scrip, as mentioned above. Fisher also wrote *Mastering the Crisis*, (George Allen & Unwin, London: 1934), which covers a lot of the same ground.

26 Details of the Lignieres and Marans systems are given in *Perspectives d'une Revolution Economique et Monetaire* by Marino-Bertil Issautier, a special issue of *Cahiers de la Pensée et de l'Action*, Paris, 1961.

27 "Financing Sustainable Development", a paper given by Hotson at the first "T.O.E.S." (The Other Economic Summit) in Australia, 26-28th November, 1993.

28 (Omni Publications: Hawthorne, California, 1960).

29 Telephone conversation.

30 Available from the E.F. Schumacher Society, Box 76, RD3, Great Barrington, MA 01230, 1989.

31 In Swann's introduction to *Inflation and the Coming Keynesian Catastrophe*. (E.F. Schumacher Society: Great Barrington, Mass. 1989)

32 C. George Benello, Robert Swann and Shann Turnbull, Ward Morehouse (ed.), *Building Stable Communities, Tools and Concepts for Self-Reliant Economic Change*, (Bootstrap Press: New York, 1989).

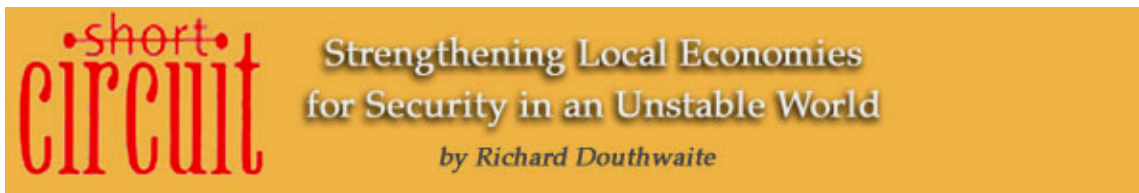
33 Professor Lewis D. Solomon of the National Law Center, George Washington University, Washington D.C., devotes almost a quarter of his book *Rethinking our Centralized Monetary System: The Case for a System of Local Currencies* (Praeger: New York 1996) to local currencies pegged to commodities and the practical steps which would have to be taken to issue one. He also provides an authoritative survey of the legal aspects of issuing local currencies in the US.

34 Karl Polyani: 'The Economy as an Instituted Process' in Polyani, Pearson and Arensburg, eds., *Trade and Markets in the Early Empires*, (Gateway: Chicago 1957).

35 Lawrence White, *Free Banking in Britain: Theory, Experience and Debate 1800-1845*, (Cambridge University Press: London, 1984). An excellent bibliographic essay on free banking by Kurt Schuler appeared in the *Humane Studies Review*, Vol. 6, No. 1, Fall 1988. See also F.A. Hayek, *Denationalisation of Money*, Institute of Economic Affairs, London, 1976

36 2/11/95





## Chapter Four

### BANKING ON OURSELVES

*High interest rates are not the only way people can get a healthy return on their savings. Organisations which recycle savings locally provide social dividends as well.*

Every working day, every week of the year, the three banks with branches in Westport, the Irish town in which I live, send large converted lorries out into the surrounding countryside to collect money. "My branch is one of the most successful in the country in terms of the amount of funds we are able to remit to Head Office for use elsewhere" one of the banks' managers, now retired, told me proudly some years ago. "We take in very much more in deposits than we lend out."

This pattern is repeated throughout most of rural Britain and Ireland: the mobile banks go out and the cash comes in. "I know of branches in the west of Ireland where the ratio of local deposits to local loans would be 6:1, but that would be extreme" another retired bank manager told me. "Four to one would be quite usual and the ratio for the west of Ireland as a whole would be two to one because places like Galway and Letterkenny are expanding and spending more than they save."

Despite the ex-managers' evidence, there are few published statistics to indicate the extent to which financial institutions are draining resources from rural Ireland. The banks claim that this is largely because they do not keep their records in a way which would permit the data to be easily assembled. Since 1991, however, the Central Bank of Ireland has collected figures for bank deposits from the farming sector: it had been publishing data on bank advances to that sector for many years. In 1993, these figures showed that Irish farmers owed £1,225 million to the banks and were owed £946m. by them. But, as the Irish Farmers' Journal<sup>1</sup> pointed out when these statistics were published, the deposit total did not include farmers' money held by building societies, credit unions, pension funds and other investment institutions, a much greater sum in view of the better return. As a result, the agricultural sector was a significant net lender to other parts of the economy.

Professor Patrick Honohan of the Economic & Social Research Institute in Dublin, who has done considerable research into monetary flows between economic sectors, told me in a letter that although he had no data, he would expect to find that savings moved out of rural and depressed urban areas. "After all, financial institutions lend to borrowers who

look as if they have plans that will result in a cash-flow sufficient to repay the loan. By definition, such borrowers are less plentiful in depressed regions"<sup>2</sup>.

This means that the economic system has positive feedback: prosperous parts of the world get more investment because better returns can be had from projects there, which makes them still more prosperous, while poorer areas have what capital they possess taken away. As a result, the poorer areas fall further behind and people living in them are forced to leave to seek work wherever investment is going on. They take up residence in the expanding areas and add their spending to its rising income flow, generating further investment possibilities. A major cause of the emigration of young people from rural Ireland is that their parents have allowed their savings to be invested away from home.

Economically, this population shift is an undesirable, inefficient outcome because it leads to vacant housing and under-utilised assets in declining areas, and overcrowding and congestion in the prosperous ones. Unfortunately, however, conventional economics is based on the assumption that there will always be negative feedback in the shape of diminishing returns and not a positive feedback like the investment-causing-a-population-shift-and-hence-more-investment case we are discussing. The discipline is therefore ill-equipped to recommend ways to stop the flow. W. Brian Arthur, professor of population studies and economics at Stanford University, is one of the few members of his profession to have tried to work out what happens when a positive feedback occurs. He described his results in *New Scientist* in 1993:

Increasing returns have interesting implications for the characteristics of economies. There are many possible patterns of world production and consumption, so it is not possible to predict which one will occur. The particular pattern that falls into place builds up organically - that is, new firms and industries grow on what is already there. This is partly the result of historical accidents - who set up what firms where and when. Once in place, such concentrations become hard to dislodge; they are 'locked in'. The resulting pattern probably does not coincide with the best allocation of resources. Even if all countries start with equal concentrations of each industry, the slightest tremble in the marketplace tilts the outcome to an asymmetric one. So with positive feedback in the form of increasing returns, the economy acquires very different properties: multiple potential production-consumption patterns, unpredictability, history dependence, lock-in, inefficiency and asymmetry.

When I first came upon these properties I was surprised - and fascinated - by them. They showed that there were theoretical reasons, not just practical ones, why the economy is unpredictable. But mere hints of these ideas alarmed economists of previous generations. In 1939, the English economist John Hicks warned what would happen if they tried to incorporate them into mainstream economics: "The threatened wreckage is that of the greater part of economic theory."<sup>3</sup>

Arthur points out that many parts of the economy - the high-tech sector in particular - do not run into diminishing returns. "To produce a new pharmaceutical drug, computer

spreadsheet program or passenger jet, perhaps hundreds of millions of pounds have to be spent on research and development. Once in production, however, incremental copies are comparatively cheap" he writes. "Once a product gets ahead of its rivals it gains further cost advantages and can get even further ahead. High technology is subject to increasing returns."

Governments obviously need to counteract the effects of increasing returns, of positive feedback, if they wish to have an even spread of a wide range of economic activities throughout their territories and prevent the concentration of economic power in very few corporate hands. However, most mainstream economists are strongly opposed to such strategies and react to proposals to, say, subsidise emerging domestic producers facing competition from established giants overseas by warning that such a course would limit the workings of the free market and thus lead to gross inefficiencies. However, this response ignores the widespread evidence that gross inefficiencies are generated by the market itself and that intervention might be needed to correct them. It also ignores the historical evidence that the governments of virtually every continental European country provided protection for their infant industries to enable them to counteract Britain's head start during the Industrial Revolution.

The idea of intervening in the market by restricting capital flows is particularly unacceptable to many economists because it would prevent investors moving their money to wherever it can gain the highest return. "A standard view would argue that the greatest national benefit is achieved if savings are put to the most productive use" Professor Honohan wrote in his letter after making his comments about capital flows from depressed areas to prosperous ones. In the context in which he used it, 'profitable' might well be substituted for 'productive'.

The existence of positive feedback means it is not just movements of capital across national boundaries which are harmful. Substantial, continuing capital flows from one part of a country to another are destabilising too, leading to prosperity in one area and decline in another. However, in the absence of any political recognition of both facts, endangered communities are going to have to limit such flows themselves if they are to survive.

One way of doing so might be for a community group to attempt to draw up a league table of the financial institutions in its area, showing the proportion of the savings that each takes in which it re-lends locally. If such a table could be prepared it would allow people to move their savings to the institution with the best local-retention ratio, so putting pressure on its rivals to improve their performance by increasing the proportion of local loans they make. However, I used the phrase 'attempt to draw up' deliberately because, if the Irish Green Party's experience in the 1994 European Election is any guide, it would prove impossible to assemble one outside the US, where the relevant data is freely available under the Community Reinvestment Act. Elsewhere, banks are likely to refuse to supply the necessary figures arguing that, because accountholders do not

necessarily live in the districts in which each bank branch is located, any statistics they supplied would be flawed and potentially misleading.

The counter-arguments, that their computers could quickly sort out accountholders' addresses and that even imperfect data would be better than nothing, are unlikely to change bankers' minds and, unless information can be obtained secretly from sympathetic (or disaffected) bank staff, the league-table project is likely to run out of steam.

Nevertheless, it is well worth while attempting to compile one in order to alert people to the effects of money flows. Moreover, the near-inevitable refusal of the high street banks to tell savers what they are doing with their deposits will strengthen some people's resolve to set up a mechanism of their own through which their capital can be channelled to local projects without the intervention of secretive outsiders.

There are several reasons for wanting to end, or at least drastically reduce, the involvement of outside banks in one's community. One is that using an external bank's services to do a job which can be done within the community causes a significant loss of purchasing power which can only be restored if the community sells goods and services to the outside world and thus stays dependent on it. For example, the farmers who lent £943m. to the Irish banks in 1993 would have been paid about £10m. in interest, while farmers borrowing the same amount would have paid perhaps £113m. for the privilege, making a net loss of around £100m. to the farming community. Not all this difference would have left rural areas because some would have gone to pay the bank staff and thus been returned to the local flow of national currency. However, since branch operating costs are usually less than half a bank's income, using outside banks to effect a transfer from one group of farmers to another caused a substantial net drain from rural areas.

The most important reason for wanting to short circuit local money flows, however, is that discussed in Chapter Two, namely, that once our savings have been passed over the mahogany counter of a outside bank, they will not return to our communities except at interest rates determined on world markets. These rates have nothing to do with local conditions or the rates of return we are able to earn by producing local goods for local sale at prices set by the lowest cost producers in the world. And, as we also discussed, these externally-determined interest rates are so extremely unstable that the cost of borrowing money can vary by over 100% within a short period, jeopardising the survival of every enterprise with an outstanding loan. During the ten years in which I ran a factory, the rate of interest the bank charged on its loans varied between 8.5 and 21%. What business, local or otherwise, can readily cope with so wide a variation?

In many places it is not necessary to start from scratch to set up a local banking system. Ireland and Britain already have almost a thousand independent, co-operatively-owned community organisations busy recycling their members' savings locally at stable interest rates - the credit unions.. The Irish movement began in 1958 and is much better developed than its British counterpart which started later - in 1964 - and only began expanding rapidly in the late 1980s. Now, however, a new British credit union is

established on average every week. Internationally, the movement's stronghold is the United States where 66 million people, almost a third of the population, are members. Irish credit unions, with 1.33 million shareholders north and south in 1993 out of a population of 5 million have achieved almost as good a penetration rate. In Britain, 1993 CU membership was around 100,000, up an amazing 40% on the previous year.

The movement traces its origins to a loan bank set up by the burgomaster of Weyersbuch in Germany, Fredrich Wilhelm Raiffeisen, who was appalled by the activities of moneylenders who 'fastened like a vampire on the rural population' during a famine in 1846/47. Raiffeisen Credit Societies were set up all over Germany and were used by the founders of the Irish co-operative movement, Horace Plunkett and George W. Russell (AE) as the model for the agricultural credit societies or 'village banks' which they helped set up around the turn of the century. By the mid-1950s, however, of the 310 originally established, only 176 survived and their activities were very small scale. Roughly half of them were so disorganised and weighed down by bad debts that they even failed to meet their legal obligation to make annual returns.

The Raiffesen model was followed rather more successfully in Canada and the United States, however, and no US credit union defaulted as a result of the 1929 crash. By 1955, there were 16,201 credit unions with a total of about 3m. members in the US, most consisting of people employed by the same firm, and it was information, letters and encouragement from these, and from credit unions in Canada, that enabled a schoolteacher, Nora Herlihy, to set up the first Irish credit union. Similarly, the first British CU was set up in Wimbledon as a result of contacts with Nova Scotia.

New members join a credit union by applying in writing to its board or membership committee. Before being admitted, they must prove they share a common bond with the existing members, either because they live in the same area or, in the case of an employee credit union, work in the same firm. If their application is approved, they will then have to purchase at least a £1 share, although some CUs impose a five £1-share minimum. Any savings they then lodge up to maximum of £6,000 in Ireland, £5,000 in Britain, are also described as shares because they go to augment the union's working capital\*.

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\* Sums above the £6000 limit can be accepted by Irish credit unions as deposits rather than shares up to the amount of its paid-up share capital. Interest is paid on these deposits at a variable rate determined periodically by the committee, but they are not covered by insurance; nor, under Irish law, can they be lent out to members: they are simply consolidated and invested in government stocks through the investment management arm of one of the banks. They therefore represent a leak of national currency from the community, and the only good thing to be said about them is that they help credit unions to cover their overheads.

Shareholders receive dividends rather than interest on their money, the actual amount determined by the union's financial results. Shares can be cashed at any time but the manager has the right to require sixty days' notice in order to preserve the union's liquidity. In most credit unions shares are not cashed if the member holding them receives a loan but held as partial security. This can make support for that credit union expensive. Recently, well-established Irish credit unions have been paying tax-free dividends on shares of around 6%, and charging an annual rate of 12.68% on their loans, the same rate as in Britain. As a result, anyone needing access to their money but too loyal to insist on selling their shares pays their credit union roughly 6.5% to borrow their own funds. The only mitigating feature of this arrangement is that the borrowers are insured and, if they die, the loan is written off and their estate receives a gratuity of twice the value of their shareholding.

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*2002 update on the Credit Union movement in the UK and Ireland (by Caroline Whyte)*

There have been many changes in the UK credit union movement from 1996 to 2002. Rebecca Edwards of ABCUL commented in an August 2002 e-mail that "there are now close to 400,000 people in credit unions, and the biggest have almost 20,000 members (bigger than some small building societies). Common bond sizes have also changed – Leeds has a credit union that anyone in the city can join, there is another in Scotland covering the borders and Lothian areas, and there is a police credit union that all Policemen in England and Wales can join. Maximum interest rate is still 12.68% – but many credit unions now charge less than this, and the limit on savings has been pretty much removed for the larger credit unions".

In Ireland, the interest rate also remains at 12.68%. The government has recently introduced a scheme whereby people who open a Special Savings incentive Account in a credit union have their savings "topped up" by the government, at a ratio of EU 1 for every EU 4 saved. Information about this scheme can be found on the Irish League of Credit Union's website.

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The risk that savings placed as shares in a credit union will be lost if lenders default or directors defraud is covered by insurance and no saver in Britain or Ireland has ever lost money. In any case, credit unions' experience remarkably few bad debts, in part because of the common bond, in part the character and ethos of the movement. In 1992, my credit union in Westport feared that loans totalling £8,826 might not be repaid out of a total loan book of almost £3m., a record many a bank would envy. Another safeguard is that in

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both Britain and Ireland, each union's accounts books are inspected regularly by the movement's own auditors and by staff from the Registrar of Friendly Societies.

Since it took an angel in Frank Capra's classic film *It's a Wonderful Life* to show the small-town savings and loan manager the difference his life had made to his community, we shall never be able to quantify the benefits credit unions have brought. Their contribution has undoubtedly been substantial, however, most notably in getting members out of the clutches of moneylenders and in building up the saving habit. A founder-member of the first Irish credit union to be organised for workers at a single company, Liptons, the grocers, wrote to Nora Herlihy: "It has done one good thing for our members. It has got them out of the moneylenders' offices and none of them will ever go back. Some of us were charged £2.10s. interest for a loan of £10 - the principal and interest to be paid back in 25 weekly instalments of ten shillings each. The credit union charge for a similar loan is about one-eighth of that amount and it remains in the credit union for our benefit."<sup>4</sup> Even today, Graham Tomlin, the president of the newly-established credit union for employees of British Airways, talks of CUs' role in fighting loan sharks who are still a serious social problem in most British and Irish cities.<sup>5</sup>

In Britain, CUs also play another role - that of providing banking services to deprived communities after high street banks have pulled out. St. Columba's credit union, which operated from church premises after it was founded in the mid-1970s, responded to the closure of a local Trustee Savings Bank branch by acquiring its own premises in Tong Street, Bradford, in 1991. "For the low-incomed and pensioners on the estates here, the closure meant spending money to go into town to pay bills" the manager, Joseph Yewdall, told me in 1995. "We now have 720 members and £250,000 assets and are growing daily. We call ourselves a one-stop community bank."<sup>6</sup> Southwark Council established South London's first high-street credit union to meet the same needs. In Birmingham, where five of the city's thirty-nine wards no longer have a bank or building society and a further six have only one branch left, the Birmingham Credit Union Development Agency has been set up to help establish credit unions to fill the gap. An estimated 28% of Birmingham's population does not have local access to banking services or is on the verge of losing it.

But can credit unions do more than fulfil the valuable role of 'poor man's bank'\*? Specifically, can they provide finance at interest rates low and stable enough to help community ventures using local resources to meet local needs to compete in their local

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\* One of the reasons credit unions are much stronger in Ireland than England is that the Irish do not regard them as largely for people who cannot afford a 'proper' bank account: they are seen as community assets, and the better-off not only save with them but play an active part in their management.

markets with goods and services supplied from outside? Or should communities develop other financial intermediaries to perform that function?

At present, credit unions are not geared to lend to small businesses and most of their directors and members think in social-service rather than economic-development terms. Moreover, although their interest rates are not only usually lower than other sources of personal finance and amazingly stable - in Ireland they have remained at 1% a month on the outstanding balance (12.68% APR) since the first credit union opened - in 1994 they were unattractive for anyone seeking to borrow for non-speculative business purposes since they were about twice what the banks were asking large, established companies to pay.

The few credit unions which believe they should channel savings into local economic development have generally done so by providing premises from which small businesses can operate. One such is the Blessington Credit Union in Co. Wicklow which spent £90,000 in 1987 buying and restoring a derelict courthouse, the architectural centrepiece of the town, to provide offices for itself and to rent to others, and then, in 1992, invested a further £84,000 in building a five-unit enterprise centre in the overgrown garden at the back. However, the best Irish example is probably to be found in Tallow, a village with nine hundred inhabitants in Co. Waterford whose the credit union was set up by sixteen people meeting in a school classroom in 1968. The first honorary secretary was Sheila Ryan. "It took us five years to be taken seriously" she says today, "but what gave us real credibility was when we were able to buy our own offices in 1975 for £4,000. We only had shareholdings of £12,000 at the time, so we took out a five-year loan from the Kanturk Credit Union which we were able to repay within three months, so great was the impact of the opening."



*The official opening of Tallow Credit Union in October 1976.  
Sheila Ryan is third on the left.*

All the work involved in running the union was carried out voluntarily by the directors until 1984, when Mrs Ryan became its paid manager, a post she still holds. "The voluntary ethos is very important, but members also want a professional service" she says. Her employment left the directors free to fulfil their true role - setting the organisation's policy. "The board became seriously concerned about the growth of unemployment in the town and encouraged the establishment of the Tallow Enterprise Group. We offered them our office facilities and meeting rooms but they were never used because



the unemployed just didn't have the confidence" she says.

Another approach was obviously necessary and so a solicitor, an accountant and three of the directors who had set up their own businesses reformed the enterprise group and began to run training courses on the top floor of the credit union building. Twenty-six people attended and, of these, half set up projects. But where were these new businesses to work from? By now it was 1989 and the organisation's 21st anniversary and, rather than mark it with a lavish dinner-dance as other societies might have done, the board decided to buy a derelict four-storey grainstore for £3,500 and spend a further £10,000 on doing it up so that it could be used by the enterprise group. Not that this meant that there was no anniversary dinner: a meal was prepared by credit union members and served in the refurbished building, Nora Herlihy House.

A playschool, a crèche and a picture-framing business started up in the new premises, along with a secretarial services company and a plastic display goods firm. "But it wasn't just used for economic development" Mrs. Ryan says. "We've had classes and exhibitions there and used it for Tallow's international sculpture festivals. You'd be quite amazed at the mess sculptors can make."

In 1993, with the old grainstore fully occupied, the CU board was keen to buy the premises of a motor dealer in the town which had gone into liquidation. "20,000 sq ft of space was being offered for £35,000" Mrs Ryan says. "However, we did not feel we could bid for it until the family which had owned it gave us permission. We don't profit from other people's misfortunes around here." Permission was given but a problem arose. The Registrar of Friendly Societies had visited Tallow three years earlier and expressed the view that owning and operating an enterprise centre was no part of a credit union's function. This, naturally, damaged some directors' confidence. "But he never put anything in writing" Mrs. Ryan says. "If he had found any legislation which we had infringed he would have certainly put it on paper. It was ridiculous - we had an Enterprise Centre worth £60,000 on our books for £10,000 and the Registrar was unhappy." Incidentally, Tallow's purchase and conversion of the grainstore would have been illegal in Britain as the 1979 Credit Union Act prevents CUs buying property except for their own use.

So, instead of buying the garage itself, the credit union loaned the necessary funds to the Enterprise Group which bought it instead and got £100,000 in government grants and soft loans to do it up. "This solution made very little difference because the Enterprise Group operates more or less as a sub-committee of the credit union anyway" Mrs. Ryan continues. "However, it would have been better if the credit union had bought it directly as we would have had another very valuable asset on our books. I think the Enterprise Group will probably assign the credit union the title one day."

When the garage had been refitted, the businesses in Nora Herlihy House moved into it to allow an adult language-tuition centre to be established in their old home. By 1995, the Tallow Area Credit Union had a full-time staff of four, almost 3,000 members and

savings of £3m. These statistics make it one of the smaller Irish credit unions, a fact which makes its achievements all the more remarkable. But it will not stay small for long. Its rate of growth has become exponential - it took it eleven years before it had £100,000-worth of savings, and 20 years to reach £1m. but the second million took four years and the third million two. Part of its attractiveness is due to its policies. "Although we have the right to require sixty days' notice, we've never asked anyone to wait longer for their money than it takes the time-lock on the safe to open. Nor have we required them to borrow against their shares" Mrs Ryan says. "It's not fair to do that and it's quite possible to avoid it if you have adequate liquidity. Normally, we keep between a quarter and a third of total savings in short-term investments or in other liquid assets."

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*2002 update on Tallow Credit Union (by Caroline Whyte)*

Des Geary, the current manager of Tallow Credit Union, commented in a December 2002 letter that the credit union "continues to go from strength to strength". In 2002, member savings stood at EUR 13.5 million and loans to members at EUR 8.1 million. Two branch offices have been opened in neighbouring villages and, Geary writes, "these have proved to be a real convenience for our members..in the rural part of our common bond".

The credit union formed a partnership with the local County Council to buy a derelict site in Tallow and make it into a free car park and recycling centre. Geary comments that "this partnership approach (working hand in hand with the local authorities) is a model that could be adopted virtually anywhere, for the betterment of our communities".

He adds that "of course we still have very strong links with Tallow Enterprise Centre which continues to grow and serve the local area. It now provides crèche facilities and regularly runs computer training classes for young and old".

The credit union has expanded to the point where it now needs new premises, so it has bought a green field site in the centre of Tallow and construction work will begin in January 2003 on a new purpose-built credit union office, at a cost of EUR 1 million. The union now has 8 full-time staff members and 4 part-time. Sheila Ryan has retired after many years of service, but is still a frequent visitor to the office.

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Tallow credit union lends 'quite a lot' to members to use in their businesses. "It would be more difficult if we were in a bigger town" Mrs Ryan says. "We know the seed and we know the breed and, if a family is honest, you can be fairly sure that the children will be too, although you do get the odd black sheep. In some cases, we would already know quite a lot about the project before it comes to us for a loan because it has been assessed

by the Enterprise Group, although it's not necessary that it comes that way. We recently made loans of £12,500 each to two members so that they could establish a joint project. That total of £25,000 would be about as much as we would ever put into one venture. The risks are higher with this sort of loan so you need a balanced portfolio."

Mrs. Ryan thinks that the main problem with business loans from a credit union is their short term - by law they have to be repaid over five years in both Britain and Ireland. "I'm hoping that there will be a change in the legislation and we'll be able to lend for ten years, but I suspect it will increase to seven" she says. If she were managing a credit union in the UK she would almost certainly also complain about the £5,000 loan ceiling as well but in Ireland there is no limit on how big a loan to a member can be so long as it does not exceed 10% of the assets of the credit union concerned.

In 1994 when the Irish banks were paying their ordinary customers about 0.5% interest on their savings accounts and lending to small businesses at between 8% and 10.25% and to big business at 6.65%, Tallow, which was paying a dividend of 4%, half its surplus, had more savings on its hands than it could lend on to members at its 12.68% rate. However, like most credit union managers, Mrs. Ryan did not favour cutting her interest and dividend rates for fear that at some time they might have to be put up again. "That's one thing that people like about our loans - they know exactly what the interest rate will be in four years' time. They are about 1% more expensive than an overdraft now but during 1992 they were very much cheaper because the banks' rates went up to 20%." Would she favour reduced-rate loans for local businesses? "Definitely not. They would be against the rules anyway because all members have to be treated equally. In any case, the risk on business loans is higher than that for personal ones."

"Before we opened up in 1989, we thought we would be able to raise a total of perhaps £50,000 in large amounts from a few individuals" Mark Beeson, a TILT founder-director told me in 1994, when the amount under its control had risen to £6,000, the highest ever. "Unfortunately, however, deposits on that scale never materialised and, as a result, we've never been able to make individual loans of more than £750."

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#### PANEL: GRAMEEN LENDING METHODS SUCCESSFUL IN CHICAGO

A combination of peer support and peer pressure can make lending to members of a group much safer than lending to an individual, even if the group has to be constructed first. This, at least, is the experience of the Women's Self-Employment Project (WSEP) in Chicago which was set up in 1986 by three professional women and a foundation to help single mothers on welfare with no credit records break out of poverty through self-employment. "52% of the Chicago homes where mothers are raising children alone are below the poverty line" says Connie Evans, executive director of the project, "and in 1992, when a charity, the United Way of Chicago, studied the city's needs, it reported that loans to emerging businesses or start-ups of under \$10,000 were virtually non-existent. That was for all social groups so the chances of the sort of women who participate in our program getting a loan was, realistically, nil."

WSEP uses an approach to lending developed by a former Bangladeshi economics professor, Mohammed Yunus, who became concerned about starvation among people marginalised by the economic system during the 1974 famine in his country and went out on to the streets to try to find out just what the barriers to their re-incorporation were. He met a woman who was being paid just over a penny a day by a shopkeeper to make bamboo stools. She would have been able to earn a great deal more had she sold the stools herself but could not afford the cost of the materials - around a pound. Within a few days, Yunus met 41 other people whose lives could also have been greatly improved if they had been able to borrow trivial sums of money - the total amount they needed was just £20. His first reaction was to give them the money himself but then he realised that, while his gift would help those he had met, it would do nothing for millions of people with similar needs. He had to help change the system. When he approached a bank to see if it would lend to his group, the idea was treated with scorn. "The poor are not creditworthy" he was told. He persisted, however, and the loans were eventually granted on the basis of his personal guarantee. The Grameen Bank was born. Over a million loans later, and with a 98% repayment rate, Yunus has proved the conventional bankers' view wrong. "The Wright brothers demonstrated that humans could fly" he says. "Grameen has demonstrated that the poor can borrow. Our statistics show that the poor are more creditworthy than the rich."

Grameen's secret is the use of borrowing circles. In Chicago, self-selected groups of five women from the same neighbourhood, each of whom wants to borrow to set up or continue a small business but who must not be related to each other or be in business together, attend part-time courses lasting six to ten weeks. During these they develop a sense of commitment to each other and are taught business skills and how the WSEP Full Circle Fund works. They also open accounts at banks where the WSEP has negotiated special low- or no-cost terms for them so that they can manage their money better and have a place to save. When the women are judged to be ready, the group is recognised as a circle, selects a name for itself - examples include Ladies of Success, Imani Five, and Too Blessed - and chooses two of its members to receive the first loans, which may not exceed \$1,500 each and are repayable over a year. The interest rate is 15%, which Connie Evans believes is not excessive in view of the high administrative costs lending this way involves.

The circle then meets for about three hours every second week 'for continuing support and assistance'. In districts in which several circles exist, the meetings are arranged so that after each has finished receiving loan repayments and discussed any new loan applications, it can join three or four other circles in what is termed a Center to discuss issues of interest to them all. "The neighbourhoods in which we work have not only been drained of economic resources but also of many of the institutions which exist in healthy communities" Evans says. "Through these meetings, the Full Circle Fund is evolving into a vehicle which enables women to begin replacing them."

One center has set up several committees to handle its members' needs both as borrowers and members of the wider community. "One of these committees helps people prepare well-thought-out loan applications. Another concentrates on arranging the types of training the women feel they want. A third is concerned with crime and violence and has developed a plan to put decals in their front windows so that children in the community can recognise a 'safe' house if they run into trouble on their way to and from school" Evans says. All the districts in which WSEP works are crime blackspots: one of them, Englewood, was described in *The Wall Street Journal* as 'a neighbourhood where every block has a boarded-up building and two inches of bullet-proof plastic separates workers from customers at Kentucky Fried Chicken.' Another journalist said of the same area that 'the most conspicuous entrepreneurs were the ones dealing drugs on the corners'

Repayments on a circle's first two loans begin two weeks after the money is received and, if the three fortnightly payments are made on time, another two of its members qualify for their loans. The final member gets her loan after a further six weeks, provided all her colleagues' accounts are in order. This is the key to the circles' success: if anyone falls down on her repayments, the four other members of her circle will be unable to get their loans or additional ones: she will have let down her friends. "Peer support and peer pressure really serve as a good way to lower credit risk" Evans told me in 1995. "Each year we make 100-125 loans totalling \$250-300,000 through the Full Circle Fund and have 17 circles in two centers in operation. The repayment rate is 97% and we estimate that about 600 businesses have been started since the program began, 85% of which are still operating."

When a circle member has successfully repaid her first loan she can apply for another one, this time of up to \$3,500, and each time she pays off a loan, her credit limit increases by \$2,000 until she reaches the Full Circle Fund's \$10,000 ceiling. The WSEP does not rely solely on pressure from other members of the circle to see that these larger loans are repaid - most are also 50% backed by some form of collateral, although frequently this takes an unconventional form. One borrower was allowed to offer her dining table and chairs as security for a loan, while others have used paintings and craft items. "Almost anything the women value can be accepted", Evans told me. WSEP is not just going through the motions - it will seize whatever is pledged if the loan turns sour. The woman who pledged her table saw it taken away and sold.

"We also give make loans tailored to a woman's business needs, such as 30-, 60- or 90-day short-term loans and revolving lines of credit for the purchase of stock." Evans says. Besides collateral, access to these further funds is usually conditional on the prospective borrower's successful completion of one of the courses WSEP runs such as its Entrepreneurial Training Program which involves attendance at a weekly two-and-a-half-hour class for a period of twelve weeks at a cost of between \$8 and \$52 weekly depending on the woman's means.

WSEP classes are therefore not cheap, but then neither is running the program, which with its four full-time workers, costs about two-thirds as much as the annual amount of money lent out. Most of its costs are in fact covered by grants from government agencies and foundations.

WSEP was not the first Grameen-type programme in the United States - "Besides Grameen, we also modelled ourselves on WEDCO in Minnesota and we helped a similar programme in Los Angeles get started" Evans says. "There are probably twelve or more organisations using lending circles now." One of these is the Lakota Fund on the Pine Ridge Indian Reservation in South Dakota which made 68 individual loans in 1987 and found that half the repayments were late and 28% of its money had to be written off. It then established borrowing circles and the default rate has dropped to 7%.

Evans believes strongly in the importance of what WSEP is doing. "The employers in the neighbourhoods in which we work are usually large companies and fast-food and retail chains which offer women low-wage and service-oriented jobs which do not provide them with the experience and opportunities necessary for their personal and economic advancement. Self-employment can be a way of escaping these limitations. It gives women a chance to provide their children with positive role-models, to increase their own self-esteem and to raise the quality of life of their families. It also keeps economic resources within the community. Profits gleaned from local money do not end up reinvested in some other neighbourhood, city or state."

Mohammed Yunus thinks that work should not be separated from the ownership of the means of production. "We have to instil in everybody's mind that each person creates his or her own job" he wrote in the Grameen Bank newsletter, *Grameen Dialogue* in 1994. "The more we can move

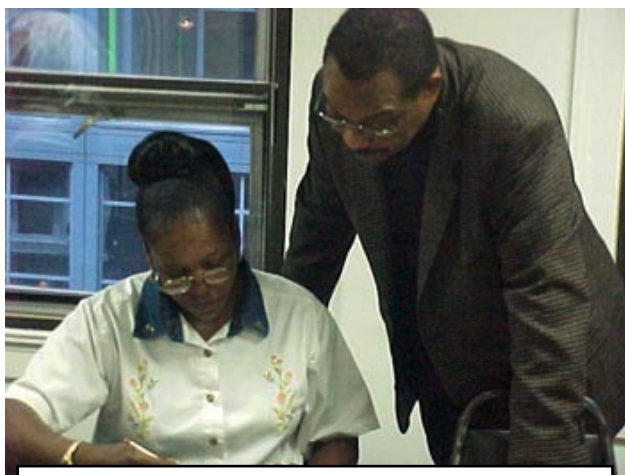
towards home-based production by the self-employed masses, the more we can come close to avoiding the disasters of capitalism."

#### *2002 Update on WSEP by Caroline Whyte*

Since 1996, WSEP has moved from providing group loans to individual micro and small business loans. Wanda White, the current President of WSEP, explained the reasons for this change in an e-mail in September 2002. WSEPtional Woman Award 2002: WSEP's 2002 Unsung Shero Award Winner Deborah Pierce (middle) with Wanda White, President of Women's Self-Employment Project (left), and Judy Barr-Topinka, Treasurer of the State of Illinois(right).

She writes that "while the model [of lending circles] promoted the peer to peer exchange and fostered the development of bonds between the women, it did not result in women actually borrowing from the circles but rather utilising the circles as "women support circles"... Women required more technical support that was not possible through a model of "Peer Support Leaders" [who] were great organisers but poor business specialists."

"Additionally (White writes), it is my belief that the culture of the United States is quite different in that we grow up in a very individualised society and tend not to practice co-operative economics. So while we talk about co-operative economics there are very few models in the states where it actually takes place relative to the entire population. Of course I hope that we will be able to study this further when we have the opportunity to look back at our work and that of others in this area. What we have retained from the circles are the "Peer to Peer" exchange and a culture of facilitation rather than teaching - ie, recognising that every one has something to contribute that aids success, not just the business specialist in the front of the room. We also learned a great deal about character based lending and the step lending process that, while it has changed, still remains a central component to how we make capital available."



*WSEP members receive training from various industry professionals to help ensure they are getting the most accurate and comprehensive information available.*

The individual and micro-enterprise loans that WSEP now makes range from \$500 to \$75000 and average approximately 50 per year. The loans have a repayment rate of 91%, and WSEP has an active database of 662 businesses, mostly in the retail and service sector. White comments that "in the past 85% of the businesses have been home based and today 60% operate their businesses outside of their homes."

White emphasises that "over its 17 year history WSEP has always recognized the importance of asset accumulation as a wealth creation strategy necessary for women to obtain economic security". To this end, the project now operates a financial education and savings programme that educates women on the importance of

financial management, saving and investing in assets. Income eligible women can, upon completion of a six week financial education course, open an Individual Development Account which is a two year matched-savings programme. For every \$1 that is saved, WSEP will add

another \$2.50. In this way, participants can acquire enough funds for a home purchase down-payment, the creation or expansion of their own business, or post-secondary education and vocational training.

For \$25 per year, women can become members of the WSEP's Money & Markets Programme, which provides technical assistance and useful contacts for small business owners. WSEP members receive training from various industry professionals to help ensure they are getting the most accurate and comprehensive information available. Women who are enrolled in other WSEP programmes can waive the fee for the first year. Businesses which provide similar services or goods to each other are also encouraged to join together to form "Industry Sector Clusters", which support each other and work to influence economic policy in ways which can benefit small urban businesses in general.



*WSEPtional Woman Award 2002: WSEP's 2002 Unsung Shero Award Winner Deborah Pierce (middle) with Wanda White, President of Women's Self-Employment Project (left), and Judy Barr-Topinka, Treasurer of the State of Illinois(right).*

Three years ago Wanda White and Connie Evans, along with the WSEP board of directors, embarked on a planning process to create an institutional model, the WSEP Family of Companies, whose purpose is to generate additional earned income in order to increase the scale and impact of WSEP. White explained that "functioning as a holding company, WSEP Futures is currently comprised of two non-profits: the Women's Self-Employment Project and

WSEP Ventures. WSEP Ventures operates two companies, a wholly owned for-profit subsidiary, CLW Foods, and the WSEP Consulting Group, a market-based strategy and management consulting firm."

WSEP also has an advocacy branch. It seeks to educate public policy decision-makers on such matters as provision of good quality employment by means of incentives for employers of small businesses, (since some of the WSEP businesses are now big enough to have employees), and quality childcare.

WSEP is one of a growing number of Community Development Financial Institutions, or CDFIs, in the USA. These CDFIs benefit from a government programme, the CDFI Fund, which was established in 1994 and which has made more than \$534 million in awards to community development organisations and financial institutions in the past eight years. WSEP is a member of the CDFI Coalition, which includes micro-enterprise development programmes such as WSEP and community-based banks such as ShoreBank. Information about other micro-enterprise programmes in the US, Canada, Japan, the UK, Ireland and the Philippines can be found at the website for the Association for Enterprise Opportunity.

When asked what future plans WSEP has, White commented that "the aftermath of September 11th has been devastating for this country and not for profits as funders contend with declining investments and government budgets are focused on 'homeland security'". She advises people

who wish to establish organisations similar to WSEP that "[these] organisations must be innovative, entrepreneurial and strategic, recognizing that we are applying market-based concepts in order to bring about positive social change for our customers. With innovation we can provide cost effective services, with entrepreneurial operating principles we always remember the customer is first and finally being strategic allows us to embrace change while maintaining high value products and services."

WSEP's website is at [www.wsep.net](http://www.wsep.net).

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Several years' thought and study went into TILT's establishment, however, and the fact that it survives and does a useful job despite its small size makes it a more useful model for communities elsewhere than an organisation which started big and experienced few problems. "Under the present system, money is inevitably drawn away from those areas which need it and loaned out in places which are already thriving" Beeson says. "We set up TILT because we realised that while people might be ready to set up small businesses and to trade on a local scale, buying from producers they knew who used methods of production which were environment- and community-friendly, their surpluses, their savings, would tend to stay in big institutions which might invest them in projects completely at variance with their depositors' ideologies and which could indeed undermine whatever those depositors were working for in their careers."

Although discussion of the need for a local bank began as early as 1981 in the first issue of *The Dart*, a bi-monthly community magazine which Beeson founded and edits, it was 1987 before Norman Duncan, a retired consultant to the oil industry, and Andy Langford, a founder of the Conker Shoe Company, one of the two co-operatively-run shoe manufacturing businesses in Totnes, began to plan to set one up.

"Originally, Andy and Norman thought that we could model TILT on investment funds in the US and New Zealand but it soon became clear that British law meant that the structure of any organisation here would have to be rather different" Beeson says. "So, in July 1987, they sent an outline of their idea, together with their CVs, to a number of organisations connected with alternative finance asking for advice and help. Most of the replies were discouraging because they pointed out that if we were to set up as a proper bank we would need at least £5m. in capital, an impressive board of directors and a three-year track record in lending before we could even apply for a licence from the Bank of England, which, even then, we would be most unlikely to get. The one positive idea came from Mercury Provident (now Triodos Bank), an ethical bank based in Sussex, which suggested that TILT should act as a broker for investors who wanted to put their money into various forms of community enterprise, which is more or less what Mercury does itself."



"A lot of attention was given to the form TILT should take. Andy and Norman investigated the possibility of setting up a charitable trust, only to find that TILT could not be registered as a charity because its activities were to be mainly concerned with assisting commercial operations, even though its objective in providing that assistance was to benefit the community and the environment. Another idea was to set it up as a Friendly Society or co-op, particularly as this would have given us the sort of democratic decision-making structures we wanted, and for a time it looked as though we would be taking that road. Indeed, at the meeting to launch the TILT Setting Up Association in February 1989, that was the plan outlined. The meeting raised £750 to cover fitting out the Community Office on the High Street in Totnes, from which TILT now operates, and to provide TILT's legal registration fees. A large number of people were interested in the project and there was a hard-core of five or six individuals who believed in directing their energies towards changing things at the local as opposed to the national level. I joined at the Setting-Up Association at its first meeting."

Two months later, however, a letter arrived from the Registrar of Friendly Societies to say that, under the Industrial and Provident Society acts, a co-op could not make investing on behalf of its members its main business. While this ruling was correct, had the Totnes group had access to specialist advice or had the Registrar gone out of his way to be more helpful, it would have been possible to have restructured the application and registered TILT under the Provident Society legislation. Instead, the project took another direction.

"By now, regular meetings of the Setting-Up Association were taking place and the letter seemed a great set-back" Beeson says. "However, Norman had discovered that an ordinary limited company carrying out investment business on behalf of its shareholders was exempted from having to register under the Financial Services Act of 1986 and could raise capital from those shareholders without having to register the issue or circulate a prospectus. This was a way out of the legal impasse, although it still meant that we became more hedged around with restrictions and limitations than we had hoped to be."

The most serious of these limitations was that TILT cannot advertise for, nor otherwise publicly solicit deposits, which as Beeson says, is 'a considerable handicap for a company with a yet unknown name'. Nevertheless, registration as a limited company and its licensing under the Consumer Credit Act went ahead and the organisation was launched on November 26th, 1989. Andy Langford had left Totnes by this time - he now lives in Oxford where he teaches permaculture design and helped establish the city's first LETS - and the founding directors were Beeson, Duncan, Prem Ash from Conker Shoes, Alison Hastie from Green Shoes, William Hubbard, a solicitor, and Amiten O'Keeffe, a builder. All except Duncan were still serving at the end of 1995.

Anyone borrowing from TILT or lending to it is required to hold a £10 membership share which enables them to help make policy and elect directors. Members are allowed to purchase an additional voting share for each year's membership up to a maximum of five

on the basis that their knowledge of TILT, and their commitment to it, is likely to be greater than that of someone who has just joined but, so far, no-one has. Members wishing to invest can choose between buying ordinary TILT shares or making it a loan. The ordinary shares cost £100 each, carry no vote and entitle the holder to a dividend should TILT's profits ever become adequate for its board to declare one. "Members understand that we're not likely to become a vast profitmaking concern" Beeson comments.

Loan stock is issued each year at interest rates determined by the sum involved and the term for which it is lent. The rates also vary with the Bank of England's minimum lending rate (MLR). Thus, for example, someone depositing the minimum amount, £100, for the minimum period, six months, will receive MLR less 6%, while someone depositing over £5,000 (which no-one has done yet) for five years will get MLR minus 2.75% "At present we lend at 6.75% above MLR, which is a lot cheaper than a personal loan from the bank, even if such loans were available to our borrowers which is generally not the case" Beeson told me when MLR was 5.25%. "Loan stock holders get an average interest rate of 2-3% because most of their deposits are quite small and lent for short periods and our administrative costs are relatively high. TILT cannot be an easy source of cheap money because we can only survive if we balance our books. Any member can join the Loan Consideration Committee which selects projects on the basis of their potential contribution to the local area. However, only projects which give firm evidence of financial viability will be assisted and all lending is conditional on the borrower having guarantors."

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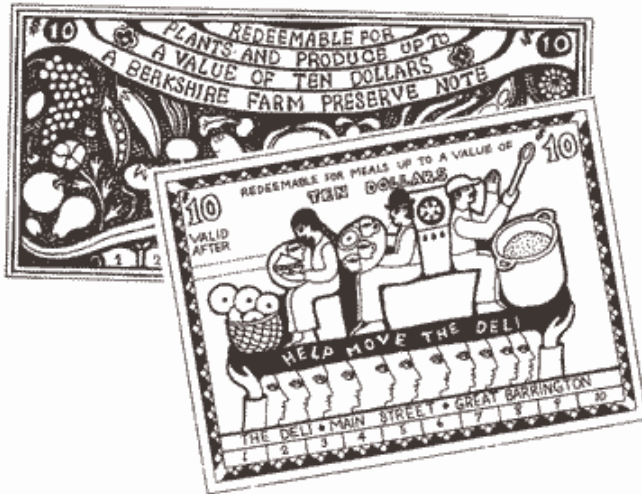
#### PANEL: NOVEL WAYS OF RAISING SMALL LOANS

Perhaps it does not matter too much if a small business has to pay a relatively high rate of interest if it can raise a loan when it needs one urgently and if the interest it pays stays within the community. This was certainly the case when Frank Tortoriello's popular delicatessen in Great Barrington, Massachusetts, faced closure in 1989 because no bank would advance him \$4,500 to move to new premises when his lease expired. Fortunately, Tortoriello knew Susan Witt, who runs SHARE - the Self-Help Association for a Regional Economy - from the offices of the E.F. Schumacher Society in the rolling wooded hills about five miles out of town. And fortunately, too, Witt knew that a Massachusetts newspaper, the Springfield Union News had survived after a 1930s bank failure closed its operating account by paying its staff in its own notes which they spent with local merchants who used them in turn to buy advertising space. She also knew that a restaurant, Zoo-Zoo, had issued its own notes in Oregon in 1977 when faced with a situation similar to Tortoriello's.

"SHARE suggested that Frank print his own currency - Deli Dollars - and sell them to his customers in order to raise the capital he needed to renovate the new spot" Witt says. "What he did was to presell meals to his customers. He sold a \$10 Deli Dollar for nine dollars in October, to be redeemable at the new business once it was renovated for ten dollars' worth of sandwiches. However, to ensure that all the Deli Dollars didn't come in during the first month, they were dated over a ten-month period." This meant that the rate of interest Tortoriello paid ranged between 44% per annum on a four-month Dollar, the earliest maturity sold, to 13.3% on one due in ten

months. "To Frank, though, it was a low interest loan because he was paying back in sandwiches rather than Federal dollars" Witt says.

"I put 500 notes on sale and they went in a flash" Tortoriello told a Washington Post reporter. "Deli Dollars turned up all over town. It was astonishing." One was even put in the collection plate at the local Congregational Church because the minister frequently ate at the Deli. "Frank's customers liked helping him move" Witt comments. "They felt that they were beating the system by keeping the business open through their own efforts. Even people who never ate there bought Deli Dollars to help out."



Dan and Martha Tawczynski, who run an organic market garden in Great Barrington and sell most of their produce from their own roadside shop got the details of the scheme from their daughter, Jan, who was working at the Deli at the time. They wondered if they could do something similar.

"During the winter months they have high heating bills for their greenhouses growing plants for spring and summer" Witt explains. "They thought perhaps their customers would help them by pre-buying plants in the same way that the Deli customers were pre-

buying sandwiches. At about this time Donald and Ruth Zeigler's roadside farm shop was badly damaged by fire. The two requests for help came to SHARE simultaneously and we suggested the two farms work it out together. Out of this grew Berkshire Farm Preserve Notes, which were sold and redeemable at either farm, so it was more of a currency than the Deli Dollar. The Notes had different redemption dates between June and October. If one farm accepted less Notes than it had sold, it had to pay the other farm for them. The Zeigler's ended up with about \$70 more than their share and took payment for them in Dan's organic potatoes, which are particularly good."

The issue raised over \$7,000 and has been repeated each year since. "I think it would have been impossible to survive without the Notes" Dan Tawczynski says, looking out over land which was once farmed but where the forest has now grown back. The Zeigler's also appreciate what the scheme has done: "We have a special pick-you-own day for Farm Preserve Note buyers" Ruth says. "We send out invitations in May."

More recently, SHARE has helped a village store, a Japanese restaurant and a coffee roasting company to raise capital - and generate extra business - by the print-your-own money route. However, it has another, more conventional way of raising money for small, local businesses - finance which is badly needed because, as Susan Witt points out: "These days, a lot of banks won't touch small commercial loans. Their costs are so high they are often not interested in discussing anything less than \$100,000."

Great Barrington is about a hundred miles from New York City and a lot of New Yorkers have bought weekend retreats there. These temporary residents are generally a lot better off than the local people and some of the more enlightened ones feel that they ought to put something into an area which gives them a lot of enjoyment. One way Witt has encouraged them to do so is by

lending money to SHARE for collateralising loans to local businesses. "Anyone who wishes can walk into our participating bank - which is locally owned and has a good track record of investing in the community - and open a 90-day notice passbook savings account jointly with SHARE" she explains. "They leave their passbook at the bank so that SHARE can use up to 75% of the amount in it as collateral for loans. The money in the account still belongs to the depositor, who gets the interest which accrues on it and is the only person able to draw it out except in the event of a default. When SHARE has decided to back a loan to someone, we formally lodge enough passbooks with the bank to cover the amount. We have a \$3,000 loan limit, although some places which have adopted the SHARE model go up to \$30,000, and we only support loans which will lead to greater regional self-sufficiency - food, shelter or energy projects - or the provision of basic community services."

Naturally the bank likes the scheme as it does not have to spend time checking loan applications forwarded by SHARE, which has already done so. Another advantage is that SHARE loans increase the total of local loans the bank can declare to the regulatory authorities, thus winning it benefits under the Community Reinvestment Act. Moreover, as each loan is fully secured, the bank carries no risk and still enjoys a healthy margin between the rate of interest it pays to the passbook depositor and the rate charged to the borrower. "We think its worth allowing the bank to make that margin because of the book-keeping work it saves us" Witt says.

What happens if depositors need to get their money back? "They have to give us 120 days' notice, which gives us time to find someone else" Witt says. "There's never been any problem paying depositors back because of the liquidity we preserve by only collateralising threequarters of the savings in each passbook. However, we do reserve the right to make depositors wait until loan repayments allow passbooks to be released." And what if a borrower defaults? "We haven't had a loss in the seven years we've been operating, but if we did, it would be shared by all SHARE depositors and not just those whose passbooks were lodged as security for the problem loan. In fact, however, we know all our borrowers well and can often help them overcome any trouble."

SHARE's first loan was to a goats' cheese maker, who needed a milking room built to government standards in order to sell her produce to shops and restaurants but had no track record with a bank. "SHARE investors are kept informed about the products they are investing in" Witt says. "They go down to Sue's farm to look at what she's been doing. The little goats are so cute that next time they bring down their grandchildren to see them. The following week they come to get a big supply of cheese for a party. Gradually, the loans they've made begin to work into their social and cultural life. The goat cheese becomes their goat cheese. It takes on a different nature just in their house."

In Australia, where small commercial loans are just as difficult to obtain from banks as they are in the US, James Evans, the director of ESBE, the Eastern Suburbs Business Enterprise Centre in Sydney, has developed a loan scheme, First Business Finance (FBF) with several features in common with SHARE but which will operate on a much larger scale. It also makes a neat link between local savers and small local firms needing funds.

FBF made its first loans in early 1995. Like SHARE, it aims to help people wanting to start businesses who cannot borrow from banks because they may have no collateral, be unemployed or have only the briefest credit record if they have one at all. A case history given in FBF's business plan is that of a redundant (the Australian term is retrenched) 52-year-old cabinet maker with a wife and three children whose tools had belonged to his former employer, who had never run a business and who had no assets which could be offered as security. As a result, although he was offered several jobs, including a sub-contract from his old company, no bank would approve a loan to enable him to purchase tools and to provide a small amount of working capital

ESBEC helps this type of would-be borrower develop a business plan and prepare a loan application and those applications it is happy about it passes on to Sydney Credit Union which releases the cash - usually between A\$5,000 and A\$10,000 - without any further investigation. When the scheme began, the credit union charged an interest rate of 12.95%, which was 2% less than its personal loan rate but 4% more than for a fully-secured home loan. "That's its premium for the perceived higher risk in the small business market" Evans says. "FBF is working on the basis that access to capital rather than its cost is the thing that matters for our sort of borrower." The costs of setting up each loan are low - about A\$350 - of which \$300 can be added to the amount borrowed.

FBF - a joint venture between ESBEC and its neighbouring BEC in Botany, with a number of high-powered external directors - guarantees the loans, but, remarkably, only to the extent of one per cent of the total value of the amount outstanding. This means that it can authorise loans worth a hundred times more than the total amount in its guarantee fund, which was initially provided by the New South Wales government, whereas SHARE can only approve loans worth 75% of the money its supporters put up. "If we do it right, that guarantee money will never be touched" Evans says.

The reason he is so confident that the guarantee funds will stay intact is the level of support the Eastern Suburbs and the Botany BECs offer FBF borrowers. The organisations - and another forty-eight BECs throughout New South Wales - were set up by the state government in response to pressure from Rotary clubs which had seen how well partnerships between the public and private sectors had worked in England during the 1970s. "The government funding for us decreases over time so the BECs must gain funds from the local community" Evans says. "Our core role is to provide a free counselling service to anyone wishing to start a small business, to existing businesses having problems and to those wishing to expand. However, we also get involved in anything which can strengthen the economic capacity or increase employment in the local area."

Many of those using the counselling services eventually join the BECs, which are non-profit companies run by their members who pay a fee based on their turnover, with a minimum of A\$240 a year. "Members pay their fees out of enlightened self-interest" Evans says. "Most offer their skills to help our advisory and training service clients and attend the social events, training courses and monthly business workshops we organise. It can be very lonely running a small business but ESBEC gives them the feeling that they are not alone."

Members also make valuable contacts. "Networking is about giving, not expecting something back" Robyn Henderson, the author of a book on networking told them on the night I attended a meeting of over a hundred members in a smart tennis club's lounge. "Business these days is built with people who trust you and with whom you have rapport. Sixty percent of people stop dealing with companies because they thought they weren't valued. Make ten new contacts a day. Be honest and open with complete strangers" she went on, and after her talk it was amazing to see the rate at which business cards were being exchanged. Indeed, although ESBEC developed quite independently, in many respects it is equivalent to the Briarpatch Network in San Francisco, which is discussed in the final chapter.

"We will not be advertising FBF loans in the papers" Evans says. "All borrowers will come from community networks like ESBEC, many of which provide pre-start training, mentors, business advisory services, in-going training and income support in the first year of business. They will all have been helped prepare a business plan and be able to call on continuous support during the operation of their business."

Evans accepts that some people who get loans will cease business before their debts are repaid but does not think that this will necessarily cause them to default. "A 1992 survey showed that 30% of those who ceased business did so because they had accepted a job and our experience indicates that, in any case, they do not accumulate large debts. At present in Australia no-one is lending to micro entrepreneurs on a large enough scale for the risks to be properly assessed. We hope to do that and our target is to prove that this sort of lending is viable so that other places around Australia copy the concept within the next five years."

*2002 update on SHARE by Caroline Whyte*

SHARE's programme for granting loans to small businesses in the Great Barrington area has been ended because it is considered to no longer be necessary. One of the criteria for getting a SHARE loan was that the loan customer had to have previously been refused a bank loan, and the banks are no longer refusing microcredit loans. Local banks are also currently able to offer lower interest rates than SHARE could, since national interest rates are a great deal lower than they were when the micro-credit scheme started. Susan Witt told me that "these banks are now handling all loans to micro-businesses".

This change in the banks' policies on micro-credit came about partly because of the example of SHARE, partly because of the Clinton government's emphasis on community investment, and partly because the banks are all locally owned and therefore have a stake in making the community prosper. Witt stresses however that "everything is still in place to gear up if necessary", ie if the economy changes and banks are no longer willing to handle micro-credit, SHARE could step in once more.

Witt also comments that "SHARE remains an important organising tool for regions without a good system of locally owned banks". SHARE-type programmes can be established with relative ease because they have no overheads - the bank does all the accounting - and they are easy to administer. In order for these programmes to work, emphasis should be placed on local knowledge and consumers should be willing to help deal with problems. For example, when a member of SHARE who ran a cleaning service was unable to make his payments because it was winter and the people whose houses he cleaned were all away, a local school which was also part of the SHARE programme was able to hire him to clean their premises, thus providing enough income for him to be able to make his payments again. This kind of creative problem-solving meant that the SHARE scheme in Great Barrington never had a loan failure.

Witt comments that there has been an increase in general awareness of the importance of community credit, and that banks are coming to understand their unique role in local economies. But, she says, "it's tough for people to think in terms of community economics rather than personal economics. Many people complain about the behaviour of large banks and corporations, but still rely on them financially as shareholders".

Witt's future plans involve the establishment of a locally-owned currency in the Berkshires. She comments that "local scrip is the future for microcredit". This scrip, like the Ithaca currency, would be based on future labour potential. Loans made in scrip would be productive loans, geared to help people produce more in their business, rather than consumer loans, geared to help people buy more consumer goods. The "Berk-Share" currency would be issued through the banks, who have arranged among themselves to exchange checks in the local currency by simply dropping around to each other's bank branches when the need arises. In this way they can get around the fact that you can't clear local currencies through the federal check-clearing system. Local administrators have also said that they may be willing to take some taxes in the scrip.

Detailed plans for the local currency, as well as an outline of Witt's philosophy concerning micro-credit, are explained in Donald Swann and Susan Witt's article, "Local Currencies: Catalysts for Sustainable Regional Economies". The idea is to provide the scrip at a 10% discount over the first year, ie customers would put down \$90 and get 100 Berk-Shares. All these original notes would come due after 15 months. The discount is provided to help people get used to the idea of circulating the currency, and also to allow the banks to become comfortable with it.

Witt and her colleagues are hoping that the currency's first year will be funded by a federal grant. Local merchants would then have enough confidence in the currency to be willing to pay an annual fee for it, which would cover the scrip's budget.

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Over a hundred Community Development Loan Funds, modelled on SHARE, have been set up in the US since 1985. Information about these and other Community Development Finance Institutions can be found at [www.communitycapital.org](http://www.communitycapital.org). Information about microcredit schemes all over the world can be found at <http://www.qdrc.org/icm>.

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Beeson admits that although TILT takes 'inordinate time and care' in vetting loan applications, one or two of the projects it has assisted have run into difficulties. "In such cases, we waive repayments for a month or two but we keep in touch with the businesses weekly, coaxing them along, and they have survived. Successful lending can't be done in isolation from the business and those behind it. We quite frequently help prospective borrowers in preparing their forecasts and sometimes our loans are conditional on borrowers accepting technical or managerial advice. The experience of similar funding systems abroad shows that close links between borrowers and lenders reduces defaults to almost zero."

TILT has only continued to operate because of a considerable amount of unpaid effort put into it by its directors. "We've helped four or five projects to continue and in some cases to flourish" Beeson says, "so we feel that we've achieved something. We're also the first organisation of its kind in Britain and have provided a model because I don't see why our system should not be repeated elsewhere." Nevertheless, he agrees that it would be better if TILT were bigger: "Then we could support a front person. At present, operating the company can weigh quite heavily on the directors' time."

In mid 1995, Beeson told me that he believed TILT would now expand steadily. "When something like this is established there is an enormous surge of support and enthusiasm. This dies away to be followed by a tough period in which you have to prove to potential investors that you are going to survive. We've just about got through that period now and more offers of deposits and applications for loans are coming in. We've just received a deposit of £2,500 for 4.5 years, our biggest and longest ever, which is a good sign. We need to have about £10,000 available to us and I hope we will get up to that figure in the next two years. At that level we would be able to break even and continue indefinitely. At present, after covering all our expenses although the directors get nothing for their time,

*Short Circuit* by Richard Douthwaite: Chapter Four

we are making a loss of between £50 and £100 a year which is funded from our share capital. That is obviously not sustainable."

Beeson is not alone in thinking that the TILT model is applicable elsewhere. Andy Langford adopted it almost entirely when he set up Shared Visions Ltd. in 1994 to make small loans available to permaculture and sustainable agricultural projects throughout the UK. "Shared Visions differs from TILT in one crucial respect" Beeson says. "TILT's whole ethos is local and we see it moving up and down the local class and interest strata building community. Mercury Provident and Shared Visions are national. They move horizontally along national class and interest strata catering for special interest groups. Before Andy left TILT he had come to feel that it was not going to be sufficiently national for what he wanted to do in the permaculture movement."

Would TILT have developed differently if it had taken Mercury Provident's advice to follow its example? Well, its founders might have registered it as a provident society - 'a form of savings-club-cum-investment-fund devised .... in the last century for small depositors' as Mercury once put it in one of its brochures. All deposits in provident societies are legally share investments which, unlike normal limited company share capital, can be repaid if the society's liquidity allows. Anyone who invests in a provident society automatically becomes a shareholder and all their investment is at risk - there is no deposit insurance as with a bank - but societies have two classes of shares and the brunt of the risk is carried by the membership shares which carry no interest and of which members must buy a minimum amount. Interest - which is strictly a dividend, credit-union style - can only be paid on deposit shares, the second type. The fact the provident societies cannot pay interest on membership shares, their risk capital, probably circumscribes them more than the limited company which TILT became since TILT can offer the hope of future dividends to entice people to buy its equivalent.

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#### *2002 Update on TILT by Caroline Whyte*

TILT still exists as an organisation, but it hasn't traded for quite a while. Because of its unconventional structure it ran into problems with persuading people to invest. Moreover, although it did receive some grant money from the EU, in general it also had problems with receiving grants because it didn't have charitable status. So it was caught in a position of being neither eligible for grants nor attractive to investors.

However, there is an interest in revitalising the institution, perhaps by altering its structure so that it would become easier to administer. David Waldron commented in October 2002 that "people have done a lot of work on different kinds of structure [for community microcredit institutions]." One idea would be to keep the name TILT and join forces with the Wessex Reinvestment Trust, a new kind of community credit institution which was launched in September 2002 and is described elsewhere in this chapter. TILT could possibly become the micro-credit providing branch of the WRT.



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Mercury itself ceased to be a provident society in 1986 because of the difficulty it was having in selling enough of the higher risk, zero-interest membership shares to its members at a time when its lending was growing rapidly to meet the highly confidential capital-to-loan ratio for deposit-takers specified by the Bank of England. Its solution was to become a public limited company and a fully-fledged bank, a route which would be closed to it and to similar bodies today. "We were able to do so only because we had been licensed as a deposit-taker - which essentially means a bank - just before the secondary banking crisis in the early seventies, as a result of which the regulations were tightened up a lot" Glen Saunders, a Mercury director, told me.

Mercury converted the provident society's membership shares into membership shares in the plc, keeping the 'one shareholder, one vote no matter how many shares they own, no dividends' principle enshrined in its new Memorandum and Articles of Association. The change meant it could issue ordinary shares for the first time. These, like the membership shares, count towards the risk capital required by the Bank of England but, unlike the former, carry no vote and purchasers can specify what rate of interest they wish to be paid within a certain range. The new shares have increased Mercury's risk capital but by barely enough to keep pace with the rapid growth of its loans which rose from £1m. in 1985 to £2m. by early 1988 and £4m. by the end of 1992. A deterrent for purchasers is that ordinary shares cannot be readily sold: Mercury undertakes to find a customer for them but warns that 'resale may take some time.'

To be approved for a loan by Mercury, a proposal not only has to be financially viable but also likely to produce a significant amount of what the bank calls 'added-value' for society and/or the environment. In some cases, the project's supporters are asked to provide personal guarantees to cover the loan if the venture proves unsuccessful. "The bank accepts normal forms of collateral but we prefer guarantees provided that they are spread thinly so that guarantors are not seriously affected in case of a bad debt" Saunders says.

Whereas TILT got its initial deposits and then looked for projects to which to lend them, Mercury has always done things the other way around, approving projects before attempting raise funds. This seems to have worked very well as the organisation has always had more deposits than it has had projects approved for loans: so much so, in fact, that at the end of 1992, £3.9m. was held in a variety of liquid financial assets, roughly £200,000 more than it had out on loan to its projects, a ratio which was in Saunders' view 'higher than desirable given our fundamental goals' and which the bank was working to reduce. Two factors had caused this situation - Mercury's rapid growth, since deposits can be taken in more quickly than they can be prudently lent out, and the need to keep large sums on hand in order to be able allow depositors, some of whom can request their money back with as little as one day's notice, to withdraw whenever they wish. "We are trying to educate our depositors to understand the consequences of short periods of notice

where longer terms will allow us to use the money more effectively in terms of our and their real intentions" Saunders told me in 1994, predicting that an optimal liquidity ration would be achieved in a few months' time.

Depositors in Mercury are invited to 'target' their money by specifying the type of activity they would like it to be used in and the interest rate they would like to be paid. Mercury then adds its fixed service charge - typically 4% - to the interest rate the customer has specified and this is the amount the borrower will be charged. In mid-1994, depositors were invited to specify rates between zero and 2.5% and could deposit a minimum of £10 for as little as a week, with only a day's notice of withdrawal being required. Fixed term deposits did offer better interest rates, ranging from 2.5% on £500 deposited for one month to 5% on £50,000 for six months, but no targeting of loans was permitted. Deposits with Mercury are covered by the Bank of England's Deposit Protection Scheme just like other banks. This ensures that 75% of deposits up to £20,000 - that is, a maximum of £15,000 - will be refunded should the bank collapse.

Potential depositors target their savings using a list of projects which have already received their loans from untargetted funds or from funds for which the depositor had merely specified the sector. Thus, if someone says they would like to make a loan to, say, the Henry Doubleday Research Association or the Glasgow Steiner School, both of which were among the 110 projects on Mercury's Summer 1994 list, their money would be placed there and the untargetted funds released for use elsewhere. Of course, there is always a chance that well-known bodies will be offered too much money and Mercury warns that "we cannot always allocate your money exactly to the projects of your choice." If the project a depositor chooses runs into trouble, he or she will not suffer - any loss will be made up out of Mercury's reserves. "We've only had three bad debts in twenty years" Saunders says. "The last one was for £75. Of course, more projects than that have ceased trading, but we've got our money back. People often perceive the sort of project we lend to as being risky but, in fact, they are more stable than commercial ventures as a rule."

Mercury was set up in 1974 with seven directors, all of whom had been influenced by the work of the Austrian philosopher Rudolf Steiner and were members of the Anthroposophical Society he founded. Only one had any experience in banking. The rest were an economic journalist, a junior business executive, a farmer, an accountant and two teachers. It got off to a slow start and it was 1976 before it processed its first loan - for a cowshed. "Then things began to come thick and fast" says Saunders. "They had to employ a secretary and the loan committee spent most of each Saturday morning meeting applicants and developing policy. However, there was still no office or telephone on which they could be reached. None of them received regular remuneration and they seldom charged fees for their time. But money came in fast enough: every loan for which they sought funds was oversubscribed."

Despite its success, Mercury was smaller than its directors would have liked. This led them to merged with a similar Dutch bank, Triodos, in mid 1995 and to take its name. "We cannot service the needs of many interesting social and environmental projects" Saunders told me some months before the merger. "Our maximum loan before we make what is known as a large exposure is £140,000 whereas a small social housing project will need at least £250,000. A satisfactory balance to the loan book in terms of risk, exposure, workload etc. has to be achieved by mixing the larger loans with the many smaller ones we take on."

Before the merger, Mercury was approached by several groups wanting to start similar, but locally-focused lending organisations. "We support the local circulation of funds, but with caveats" Saunders says. "There can be difficulties with too circumscribed a circulation area. Small local funds have difficulty generating the capital needed except for the very smallest types of enterprise and the liquidity of such funds is often highly restricted. The danger of local collapses of circulation is considerable. At present we are looking to see whether we can create something with and through Triodos - by, for example, local targeting - which will achieve the benefits of local circulation without these disadvantages."

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*2002 Update on Triodos Bank by Caroline Whyte*



*A wind turbine under construction in North Wales, as part of a project financed by Triodos*

Triodos Bank has developed considerably since 1996, and continues to have the same mission, exclusively providing loans to organisations which meet its ethical and environmental standards. James Niven, the communications manager at Triodos, comments that "there is a growing movement of people in the UK who are interested in this type of banking". He cites a September 2002 NOP Poll, commissioned by the bank, which indicates that 63% of UK consumers think that their savings should benefit society as well as pay interest.

In 2001 the UK-based branch of Triodos Bank had a total of 247m EUR in funds entrusted to it, of which 79m EUR was loaned out. Overall, the bank had 667m EUR in funds, with 329m EUR in loans, and the Triodos Group, which comprises the bank and its managed investment funds, had 1,109 million EUR.

As these figures show, the number of deposits has grown enormously since 1994, but the ratio of loans to deposits is still quite low, at 49%. The 2001 Annual Report states that "the objective is to have at least 50% of the deposits in loans and increase this, *Short Circuit* by Richard Douthwaite: Chapter Four

over the long term, to 70%". Niven says that "while an increase in loans has struggled to keep pace with a marked increase in personal deposits, this continues to be a target for the organisation".

The bank also continues in its policy of transparency, whereby customers know exactly how their money is being used. An annual project list is available which gives detailed descriptions of loan customers' projects. Niven says that this policy is unique to UK banks. Accounts can still be targeted, eg there is an Organic Saver account which funds organic farms, run in partnership with the Soil Association, an Earth Saver account, and a Just Housing account, among others. Niven explains that although there is no formal programme that emphasises local targeting - ie targeting a fund to a specific local area - it's possible nonetheless to target funds in this way by connecting savings very specifically to a particular organisation or local charity.

Triodos Bank recently launched a campaign, 'Take Control', which is intended to "challenge people in the UK to take control of their finances and use them to make a positive difference to society and the environment" (quote from Triodos website). As part of this campaign it has established a new Charity Saver account, which enables savers to direct a proportion of their interest to a designated charity, which can be national or local.

Triodos Bank has offices in the UK, the Netherlands and Belgium, and some of its borrowers are also in Ireland. Niven comments, "The overall aim of the bank continues to be to contribute towards a more people-orientated society, which respects people, the environment and culture. Triodos Bank hopes to achieve this by continuing to grow in terms of size and the impact it makes on wider society."

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Because of the massive hurdles which have to be cleared before the Bank of England will permit registration as a bank, only one organisation in Britain or Ireland is currently attempting to establish itself as a fully-fledged, locally-oriented bank to foster community initiatives. This is the Aston Reinvestment Trust whose foundation was promoted by the Birmingham Settlement, a charity working for the regeneration of life and business in disadvantaged areas of Birmingham. "We've modelled our project on the community development loans funds in the US. There are now fifty of these and their loss rate is only around 1%" Pat Conaty, the project's development manager told me in late 1994. "We've set up two companies, Aston Reinvestment Assurance, an insurance company, and Aston Reinvestment Company, an investment company, and one underwrites the risks of the other. We are now trying to raise £3.5m. from churches, foundations and ethical investors. If we are successful and the investment company can establish a good track record, we hope to be licensed as a bank and be able to accept deposits from the public in three or four years." Six months later, enough seed money was in place for the Trust to be

launched at the Bank of England premises in Birmingham with Joan Shapiro of the South Shore Bank (see panel) as keynote speaker.

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#### PANEL: HOW A BANK CAN TRANSFORM A NEIGHBOURHOOD

"In deteriorating neighbourhoods, capital flows out of the area; people cease upgrading their homes and landlords fail to maintain their buildings; property values fall; store owners quit investing in their businesses and close or move; and neighbourhood residents lose hope, stop investing effort in education and developing work skills and fall into unemployment" Milton Davis, the chairman of the bank responsible for perhaps the world's best example of what a financial institution can do to rescue a declining neighbourhood, told the US Senate Committee on Banking, Housing and Urban Affairs in February 1993.

"Revitalising such neighbourhoods requires recognition that disinvestment is itself a market phenomenon and, consequently, will only be reversed by fundamentally re-invigorating neighbourhood markets" Davis went on. "Permanent, self-sustaining neighbourhood renewal results from creating an environment where private investors inside and outside the neighbourhood are confident their investments will be reciprocated and rewarded as healthy neighbourhood dynamics are restored."

In the 1940s and 50s, the South Shore district of Chicago was considered one of the pleasantest, most convenient places in the city to live because of its location beside Lake Michigan just south of the central business district. Even as late as 1960, its predominantly middle-class population was almost 100% white. Ten years later, however, many of the whites had moved to the suburbs and South Shore had become 70% black, a remarkable demographic switch in so short a time.

Fearing the neighbourhood would turn into a slum, most of the area's banks moved with its whites and by 1973, only three were left to serve a population of 78,000 living in 25 city blocks. Two of these were badly-run banks on South Shore's periphery which were later closed by the government regulator. The third, the South Shore Bank, had increased its capitalisation in order to gain official permission to open a branch in downtown Chicago and, had the permit been granted, it would almost certainly allowed its South Shore branch to run down. It had already switched its lending activities elsewhere - of the \$33m. it had taken from South Shore in deposits, only \$120,000 had been returned on loan to customers living in the area. Essentially, Chicago's banks had made a self-fulfilling prophecy - because they expected South Shore to decline under black occupancy, they refused to lend in the area, thus making it certain that the predicted decline would occur.

That it did not was because a miracle happened. South Shore Bank was bought by a company set up by a young, idealistic team of bankers (a phrase which sounds like a contradiction in terms) who had worked together at another Chicago bank, the Hyde Park Bank and Trust. They were led by a 36-year-old, Ronald Grzywinski, a former President of two banks, including the Hyde Park.

"Under pressure from Adlai Stevenson, a former Democratic presidential candidate, the Illinois state treasurer had made a \$1m. time deposit in the Hyde Park bank on condition that it was used to make loans to minorities" Grzywinski says. "I was president and part-owner of the bank at the time and the demand for these loans was very high. So, in February 1968, the Hyde Park board approved the establishment of a permanent division to handle this type of business." Milton Davis, Mary Houghton and James Fletcher, all of whom later moved to South Shore, were

recruited to work in the division. In 1969, Grzywinski left Hyde Park to become a Fellow at the Adlai Stevenson Institute for International Affairs, and then, in 1971, he began to work full-time on plans which eventually led to the take-over of South Shore in August 1973.

"The first thing that we did was to close the directors' dining room, so that every employee had lunch in the same place. Then we called all the loan officers together and told them that, although we thought that they were very good at their jobs, they must not turn down loan applications from the South Shore area without the express consent of Mary Houghton or myself" Grzywinski says. "The bank was profitable but its previous management just had not understood the changes taking place in the area. For example, the bank closed early each afternoon, preventing working people using it. We went round to all the voluntary organisations in the district such as the PTAs (Parent-Teacher Associations) in order to learn from them."

The immediate effect of the take-over as far as customers were concerned was that mortgages for purchase of good quality single family houses became available for the first time for several years. Previously, every financial institution in the city had 'red-lined' South Shore and refused to finance mortgages there, a practice outlawed two years later under the Home Mortgage Disclosure Act.

"It was four years before we were able to lend for the purchase and rehabilitation of units in multi-occupancy housing blocks, a type of business which other banks had found to be very high risk" Grzywinski says. "The delay was because we didn't have the capital to set up the bank subsidiaries which now take this task on."

According to Malcolm Bush of the Woodstock Institute in Chicago which studies community financial institutions, once the bank felt able to lend on apartment blocks it concentrated on several close together in a part of South Shore where their renovation would be most obvious in order to try to change the inhabitants' perception of the area. By the end of 1993, the bank had financed the renovation of more than 9,000 flats, over a third of the total number in the entire district. Indeed, Grzywinski attributes the bank's success with this type of lending to the scale on which it was done, saying other banks have failed with it elsewhere because they have not lent enough to make a difference to public attitudes in the areas where their renovations have taken place.

The way South Shore typically operates today is that its real estate subsidiary, City Lands Corporation, will initiate a large scale housing rehabilitation for which it can generally obtain government subsidies. This enables dozens of local, entrepreneurial real estate borrowers to carry out smaller-scale rehabilitations in the same area, knowing that each investment they make reinforces every other investment's viability. Grzywinski admits that other banks have criticised South Shore for the risk it is taking by concentrating all its lending in the same geographical area. "We did sell some of our loan portfolio to Equitable and to Metropolitan Life [both large life assurance companies] just to prove we could be liquid if we needed to be, so that's a non-issue now. Our proudest achievement is that other banks are now investing in the area, demonstrating that the market has begun to work again."

South Shore writes off only about a twentieth of its property loans annually as a result of sticking to areas it knows, helping its borrowers with advice and steering them to properties to rehabilitate which suit their skills and financial resources. Leroy Jones, a plumber, and his wife Josephine say that they learned to renovate property successfully as a result of meeting other landlords at fortnightly breakfasts sponsored by the bank. Today, they own five buildings, all mortgaged by South Shore, which keeps close tabs on them. Their first building was financed by another bank. "You know, I don't think that they ever came by " Mrs. Jones says. "Mr. Bringley [the vice

president responsible for their loans] is always saying 'I drove past your building. I see you put another tree up.'"

Grzywinski says it was eight or nine years after the take-over before even the bank was sure that the techniques it was using would work predictably. It returned to profit in 1983 and has not made a loss since. In 1992, its net profit was \$2.2m. on assets of \$229.1m., of which \$161m. was loaned out. Loan losses were 0.4%, a figure many banks would envy. All told, it pumped \$41m. into its area of Chicago during the year, most of it deposited by savers outside its service area attracted by the work the bank was doing. "We've got depositors in every American state and in seventeen foreign countries" Milton Davis told BBC Radio 4's *The Financial World Tonight* in 1993.

Unsurprisingly, this level of investment has not cured South Shore's social problems, although it has certainly alleviated them. "South Shore was a middle class community before the whites moved out and it is still middle class" Malcolm Bush says. Grzywinski agrees: "The demographics have changed surprisingly little. 17-20% of the population are below the poverty line and 50% can be regarded as high income. The mass of working people would earn between \$15,000 and \$25,000. We have people on welfare, of course, and a lot of single female heads of households. Crime has gotten worse recently, largely because we've too few entry-level jobs for single young men, but I think it's less of a problem than in other black neighbourhoods in the city. Crack cocaine and the ridiculous attitude we have in this country to guns don't help." Milton Davis told the BBC: "The missing building block is jobs. We need help on this one."

Four years after South Shore was taken over, Congress passed the Community Reinvestment Act, which encourages banks to re-invest deposits received from their service areas by ranking their performance in this direction. Any bank with a below-average record of re-investment finds it difficult to get permission from the regulators to merge with another bank or to relocate its premises. As a result, banks are increasingly trying to move in South Shore's direction and are re-opening in places they deserted 25 years before. "I heard a banker from Milwaukee complaining last week that he'd offered loans in a low-income area but very few borrowers had taken them up" Grzywinski told me. "My attitude is that he just wasn't trying hard enough. You can't start doing our sort of business by printing a brochure and taking TV time. It's more complicated than that." Malcolm Bush comments: "South Shore have found that they need to be very close to their customers and to know their area street by street."

At present, there are only three other 'community development' banks like South Shore in the US, although President Clinton called it 'the most important bank in America' during his 1992 election campaign and said that he wanted to see a hundred more of them set up. This was not just campaign rhetoric because during Clinton's term as Governor of Arkansas, South Shore set up the Southern Development Bancorporation at his request. Grzywinski is chairman of the board. Southern works in the small towns in the south of the state where it sees its mission as 'to channel financial and informational services to local entrepreneurs so that residents can build thriving, diversified economies independent of large, distant corporations'. Besides Southern, the two other development banks are the Community Capital Bank in Brooklyn, New York, and the Self-Help Credit Union in North Carolina.

"The most important characteristic these institutions share is a mission to work towards the economic development of a community and its residents" says Kate Tholin, Malcolm Bush's colleague at the Woodstock Institute. "They target a specific geographical area, use credit as a tool for revitalisation and empowerment, provide technical assistance and education on financial matters, and work in partnership with other community organisations and professional lenders."

Could the South Shore model be used outside the US? Many people are dubious, pointing out that it took twenty years for South Shore to establish its credibility and that around £10m. would be needed in share capital before any new bank could operate on a similar scale. Any smaller level of lending in a target area might be inadequate to change perceptions about it and thus fail to get others to invest as well.

Grzywinski prefers not to talk about why South Shore was the United States' only community development bank for over fifteen years and why he and his colleagues were the only bankers to respond so wholeheartedly to a pressing social need. "Answering questions about why we did it could take a lifetime. For myself, I think you could say that it was a combination of boredom - I'd had two very senior jobs in banking at a very young age and earned a lot of money very quickly - and my feeling that I needed to make myself the opportunity to apply my talents to something I really cared about. I wanted a challenge in a job I knew I could do well."

#### 2002 Update on South Shore Bank by Caroline Whyte

South Shore Bank changed its name to Shorebank in late 2000 to reflect a broadening of its focus. Shorebank institutions have now been established in Cleveland, Detroit and the Pacific Northwest region of the US. These affiliates have together invested over \$1.4 billion in inner city and rural neighbourhoods across the US. J.B. Miller writes in Marketplace magazine (August 2001) that "while the bank did acquire two banks in 1995, most of the growth has been as a result of articulating a vision and meeting the needs of a community that too many people had given up on". Losses have remained relatively low, at 1.33%, and the net income in 2001 was \$10.1 million.

In 2001 the bank decided that it should concentrate on three major lines of business: lending for multifamily rehabilitation projects as described above, small-business lending and lending to churches. The churches are primarily in African-American neighbourhoods and provide important social services such as elder care and day care, so these "faith-based" loans fit in well with the bank's ethical guidelines.

Paradoxically, the bank considers the establishment of other, competing banks in an area where it operates to be a sign of success, because this indicates that the area is now considered "credit-worthy" enough for mainstream financial institutions to want to invest in it. The bank has actually moved away from offering auto loans and credit cards, because it considers this part of the market to be well covered by its competitors. It is concentrating more on single-family mortgages, offering reasonable rates in order to drive away predatory lenders, and bank officials have been pleased recently to notice other banks moving in to some of its target areas and offering rival mortgages.

Shorebank keeps track of loans it makes that have a "significant ecological benefit" in terms of energy conservation. The 2001 Annual Report states that "conservation loans include business loans that promote energy conservation, significantly reduce future environmental impact, or assist in the removal of contaminants already present in the environment, or loans to businesses that derive a significant percent of their sales from 'green' markets." The report considers 197 loans from 2001 to fall into this category, making a total of \$42 million (over three times more than the previous year).

ShoreBank Pacific, which is based in the Pacific North-West, has a particularly environmental focus. Loan customers are all located in the bioregion of the Pacific Rainforest - from San Francisco up to the Canadian border. The bank's website states that "we lend money from our program to businesses and non-profits that are committed to improving their environmental footprint. While many of our loan customers are



environmentally related organizations, we loan to all who are serious about developing a sustainable economy and community." The bank works in partnership with Ecotrust, a nonprofit organisation "dedicated to supporting the emergence of a conservation economy along North America's rain forest coast" (quote from Ecotrust website). Loans are targeted to help customers in improving "energy efficiency, materials use, embedded energy, infrastructure access, and access to capital due to geographical location."

ShoreBank, 7054 S Jeffery Boulevard, Chicago, IL 60649. Tel. 773-288-1000.

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2003 update on Aston Reinvestment Trust and other UK Reinvestment Trusts (by Caroline Whyte)

ART has succeeded to such an extent that it has become a model for many other Community Reinvestment Trusts which have been established in different areas of the UK since 1996. These Trusts combine several of the ideas described in the original text of *Short Circuit*. For example, in addition to micro-credit programmes, Community Land Trust projects (such as are described in Chapter 6) are emerging under the auspices of ART Homes Fund, the Wessex Reinvestment Trust and the London Rebuilding Society simultaneously. These other Trusts are also described below.

Since its launch in June of 1997, ART has made 93 loans which have totalled £1.7 million. The average loan size has been £20,000, and the total amount leveraged has been £2.4 million. In terms of social performance, 193 jobs have been created and 567 have been preserved. 70% of ART's loans are made to small businesses and 30% to social enterprises.

The businesses which the Trust has provided loans for are quite varied. They include an electroplating company, a community nursery, a grounds maintenance service, a factory which produces innertubes for bicycles and a printing company. In its 2002 annual report, Steve Walker, the Chief Executive of ART, describes ART's clients as "a whole range of borrowers who wouldn't otherwise have been able to grow their businesses or even get them off the ground - people entering self-employment for the first time, small businesses, and social enterprises. We have a wide cultural mix in both our small business sector and social enterprises, including organisations helping the homeless and people suffering from addictions".

ART had been hoping to be able to have £3 million available for loans at this stage, but it found fund-raising to be a challenge. Sir Adrian Cadbury, the Chairman of ART, comments in the 2002 annual report that "we would like to see more companies investing. We've really done remarkably well with individuals and we've had very good help from banks, but there's still a job to be done in persuading companies that a healthy Birmingham is to their advantage and they can help by investing in us".

ART charges comparatively high interest rates for its Business Development Loan Fund - 12% for loans to small businesses. (This rate compares favourably however with US credit unions, which tend to charge around 16% for such loans, and the Grameen Bank, which charges 25-30%). The rate reflects the risk involved in the investment: there is a 13% default rate. Walker comments that "...it has been access to finance rather than the cost of finance that has been the issue. We've had no negative reaction to our interest rates from our borrowers. If you ask the people

who consider us expensive where they would go for finance, they often say credit cards. These actually have interest rates sometimes 10% higher than ours!". Repayment periods vary from 6 months to 10 years. Borrowers have to become investor members with a minimum deposit of £250, redeemable upon full clearance of the loan. Information about borrower's management accounts must be provided to ART so that it can monitor progress.

Pat Conaty comments that "ART works in complementary fashion to community credit unions, as does the London Rebuilding Society" (see below). "I am working with Cliff Rosenthal, an old friend who runs the National Federation of Community Development Credit Unions (CDCUs) in the USA." The federation has 207 member credit unions which serve more than 600,000 shareholders throughout the US, and has over 1.9 billion dollars in assets. It provides technical assistance and training for its members. Conaty explains, "we have made sister city links between New York CDCUs and Birmingham community credit unions..... there are 31 Birmingham Credit Unions and the Birmingham CU movement is about to launch the first European Community Development Credit Union".

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#### PANEL: Community Development Credit Unions in the US

by Caroline Whyte, August 2003

"Development, finally, boils down to every citizen becoming more productive and able to function," says Caryl Stewart, director of the Vermont Development Credit Union, on the credit union's website. The credit union is one of hundreds of Community Development Credit Unions (or CDCUs) in the US, all of which have similar goals and all of which are co-operatively managed. Pat Conaty describes them as "the best examples I know of American Social Enterprises that walk the talk, and battle like Road Runners with their flyweight size for Peace and Justice." They are active in a wide variety of fields, from campaigning against unfair banking practises to enabling small businesses to become more energy-efficient, as well as providing assistance, both financial and otherwise, to low-income households.

#### Helping communities to take control of their economies

William Myers, the founder and CEO of Alternatives Federal Credit Union in Ithaca, New York, says that the credit union's greatest achievement is that "we have proven that a local community can take control of its financial assets and direct its own development. The "tipping" effect is very strong: Our 3% of the local economy has leveraged the rest of the beast around. "

Myers explains, "Our model of community controlled, capital led development is the 'Credit Path'. By identifying underserved markets (which have a large overlap with poverty) and making products to serve those markets, we build a continuous "path" out of poverty. The community benefits from the increased ownership and stability of households." Clients are encouraged to move from being 'transactors' - using the credit union solely to cash cheques, etc - to becoming savers, loan customers and eventually, owners of homes and small businesses.

The programmes offered by Alternatives include Individual Development Accounts (IDAs), in which savings by low income participants are matched to provide assistance in paying for a home, education or small business, and Community Partnership Lending, described on the website as "a way to partner with non-profits to expand lending to their underserved clients".

One member of Alternatives who has benefited from its programmes is Jasmin Cubero. Myers writes "one look at her credit report, with her list of debts, was enough to get her rejected for even a small loan [from a conventional bank]. Following the advice of friends, she decided to try Alternatives. Ronda Porras, Director of Consumer Lending, saw a young, determined single mom, working two part-time jobs and

going to school full time. Ronda saw a way to consolidate some loans, and believed Jasmin would pay back the loan. She approved a small loan, which Jasmin paid off in three months. When Jasmin applied for a car loan, she was approved. "With Ronda's help, I was able to make a plan. I'm comfortable with the payments, and now I have reliable transportation for me and my girls," Jasmin said. "Alternatives gives community members a chance. Ronda saw beyond my credit problems. I think the name says it all. You gave me an opportunity. I feel a sense of accomplishment. My next goal is a house!"

Terrie and Clarence Mayu are also satisfied members of Alternatives. Mayu used her IDA in 1999 to purchase a home with her husband Clarence and their 3 children, Jasmine 15, Julian 10, and Rekee 3. Myers writes, "Since buying their home, Terrie and Clarence have used the IDA to continue their college education. "Because of the IDA program, we've learned how to save to reach our goals. Now we have other savings goals like an emergency fund, vacations, and are looking ahead to our children's educations. I couldn't have pictured myself here 10 years ago when I didn't have any savings, didn't have a vision for the future. I felt stuck in a rut. With the support of the program, we are able to see where we want to be, and now know how to get there."

Counselling plays an important role for loan clients of CDCUs. At Vermont Development Credit Union, another prominent CDCU, fifty percent of potential loan customers are considered to be ineligible for loans when they first apply, but they are given guidance and support to help them get their finances in order. They are encouraged to get rid of bad debt and to track their financial history. Similar approaches are taken at other credit unions.

Vermont Development Credit Union was founded in 1989, and anyone who is involved with a Vermont non-profit or religious organisation is eligible to join. In 2002 the credit union made 1,994 loans totalling \$20.8 million. The delinquency rate on loans is only 1.25 to 1.5 percent. Loan funds come partly from members and partly from outside investors, who hold \$9 million in federally-protected Certificates of Deposit. One source of funds has been a local bank, which does not consider the credit union to be a rival since the majority of the credit union's clients are low-income.

Around half of the loans provided by the credit union are for mortgages, and there are also home improvement, business and personal capital loans available. An energy saving loan is geared towards helping business owners make their businesses more self-sufficient. Jonathan Connor, a dairy farmer who rents his 500-acre farm from his father, made use of this loan to buy new thermostat-controlled fans with energy-saving motors and energy-saving lighting. The investment paid for itself through reduced utility bills. It had another benefit, too. "In the old days, if you came in the barn in winter it was warm and damp," says Mary Ann. "Now it's cool, and the air is clean. The cows don't get pneumonia. They stay much healthier." (quote from website).

#### *The struggle against predatory lending in the US*

CDCUs have not only helped individuals to improve their finances, and thereby their entire lives. They have campaigned for broader changes in the ways that credit and loan financing are dealt with by society.

According to the Eric Stein, vice president of North Carolina's Self-Help Credit Union, "the most important lending issue today is no longer the denial of credit but the terms of credit". The Self-Help Credit Union has a strong history of public policy advocacy, including a successful campaign against predatory lending practices - ie, lending practices carried out by banks and other loan institutions, some of them mainstream and well-known, which may be technically legal but which nonetheless have the effect of further undermining low-income customers, and even whole neighbourhoods, by stripping them of assets. Some examples of predatory lending are:

- charging excessive fees, which are often "worked into" the closing of the deal and thus hidden from the loan customer. These fees can be charged more than once if the loan customer refinances the loan, and they

*Short Circuit* by Richard Douthwaite: Chapter Four

are often pressured to do so. North Carolina research has shown that one in ten customers who had obtained 0% first mortgages through Habitat for Humanity by means of their own and volunteers' sweat equity had their loans "flipped" into high interest ones by predatory lenders. This is particularly egregious as it uses a decent programme as a wedge to take advantage of vulnerable people.

- charging rates that go beyond the actual risk involved in making the loan. This often happens because the loan agents receive kickbacks according to the interest rate they persuade their customers to pay, thus providing an incentive to charge as high a rate as possible.

- excessive foreclosures, brought about partly because the loan customer is put under a great deal of financial strain by the practices described above. The foreclosures have a negative effect on the entire community the house is located in because the increase in boarded-up houses brings down the value of surrounding houses and encourages crime.

All of these practices have been shown to effect African Americans disproportionately, although all low-income customers are potential targets. The Self-Help Credit Union estimates that US borrowers lose \$9.1 billion annually to predatory lending practices. Obviously, everyone, regardless of their income, can be vulnerable to this sort of practice, but it hits low-income people far harder than others since they often lack health insurance and do not have the funds to maintain their home or vehicle properly. People who are living close to the edge are much more likely to be wiped out by these practices.

The Self-Help Credit Union has managed to fight back effectively against this type of practice in North Carolina by forming the Coalition for Responsible Lending (CRL). CRL is an organization representing over three million North Carolinians in eighty organizations, as well as the CEOs of 120 financial institutions. In 1999, CRL spearheaded an effort that resulted in the overwhelming passage of the NC predatory mortgage law. "The bill was supported by associations representing the state's large banks, community banks, mortgage bankers, credit unions, mortgage brokers and Realtors, as well as AARP, the NAACP, and consumer and community development and housing groups. CRL now is working to strengthen broker licensing in North Carolina, assist initiatives in other states, and help develop effective federal regulatory and legislative solutions." (from CRL website).

As John Caskey, a professor of economics at Swarthmore College, pointed out in his keynote address at Alternatives in May 2002, predatory lending is really just a form of swindling. Legislation is extremely helpful but can't solve the whole problem, as the swindlers are constantly looking for loopholes and other ingenious ways to fool people into accepting their loans. Clearly, an important cause of the problem is that low-income people tend to be less aware of the options available to them, and that they may have a choice beyond what is being offered by the swindlers. So here again, counselling and education are very important.

#### *The big picture: the National Federation of Community Development Credit Unions*

The CDCUs mentioned above are all members of, and receive assistance from, the National Federation of Community Development Credit Unions, an umbrella organisation based in New York. It was founded in 1974, and operates with a staff of 20 and a budget of \$2.5 million. Its member CDCUs are located all over the US in forty states, with the densest concentrations in the Northeast and Southeast. Two thirds of them are urban, and the remaining third are rural or reservation-based.

The federation's history is naturally closely linked with the history of CDCUs in the US, and shows the importance of obtaining funding from many sources rather than just one or two. It was run solely by volunteers for its first few years. Under the Carter administration it managed to acquire some funding, but had to contend with the administration's desire to control the development of the movement, for example by selecting which credit unions qualified as being CDCUs. Under Reagan, funding was completely stopped and the federation's budget plummeted from \$500,000 annually to \$5,000. Once again it had to be run by

*Short Circuit* by Richard Douthwaite: Chapter Four

volunteers, with Clifford Rosenthal maintaining a part-time, skeleton operation from his home. Membership had shrunk to less than 60 credit unions.

At that point the federation decided to pursue an idea that had first been considered at the time of its launch - to try and raise money from private, "social investors" such as foundations and religious organisations. In 1983 it was able to raise operating grants from two large foundations, and thus became able once more to support a small staff. A revolving loan fund which had been established under Carter was still in operation, although the interest rates had been raised from 2% to 7.5% by the Reagan administration.

In the mid-eighties, the federation helped with establishing a new CDCU in New York which replaced a conventional bank, and also expanded the range of programmes provided by credit unions in the area to include job training and small-business lending. The Reagan administration showed some interest in the federation's "self-help" philosophy, and although it didn't provide any funding, its interest did spark more private-sector attention. Funding began to come in from large foundations and by 1986 there was almost a million dollars under management. For the first time, banks began to recognise the value of CDCUs and to provide support. However, numerous regulatory obstacles were put up by the government, and by the early nineties there was also an unhelpful trend towards mergers to form larger credit unions.

The federation worked with other credit union organisations to strengthen the movement, and formed networks of similar CUs such as faith-based unions and youth-oriented unions. It also became involved with Americorps VISTA programmes, which provided volunteers to help with projects, including the establishment of Ithaca Hours.

Throughout the nineties, membership of NFCDCU expanded and demands for technical assistance with CDCUs grew. The federation published a manual for organising CDCUs, and established a three-year training programme in credit union management and community development. After the Rodney King riots in Los Angeles, the federal government began to show more sympathy towards the idea of CDCUs, and with the election of Clinton the climate became friendlier again. The federal government under Clinton provided a \$3.25 million grant from the Community Development Financial Institution (CDFI) fund. This fund's establishment was influenced by ideas that NFCDCU had developed in the mid-eighties, and the example of institutions such as Chicago's South Shore Bank. Regulations were changed to make it easier to establish CDCUs, although some new obstacles were also put in place: for example, credit unions now have to conform to mandatory capital standards.

In a December 2002 e-mail, Rosenthal described some of the recent challenges that NDCFCU has had to face: "the increasing consolidation of the credit union industry -- the trend toward fewer, larger institutions. The increased regulatory burden, which is hard on credit unions generally, and disproportionately hard on the smallest ones. The rising expectations of members, even in low-income communities, who want a high level of service that is difficult for small institutions to provide. The increasing complexity and cost of technology. The widespread lack of concern -- and even hostility -- in the U.S. for the problems of low-income and poor people. Succession issues, as the generation of the 60s and before heads toward retirement; the spirit of volunteerism and social activism is perhaps much diminished since our prime. " In addition to these problems, the Bush administration is now pressuring Congress to severely cut back on the CDFI Fund.

Rosenthal writes about future plans, "we will continue to work to assure that CDCUs are well capitalized, that they have access to advanced technology and can reap the economies of automation even if not those of scale; we will aggressively pursue partnerships with larger credit unions of the "mainstream," to try to piggyback on their considerable capacity. We want to continue to work with other emerging credit union movements around the world." One beneficiary is a new CDCU in Birmingham, England, that is being established in 2003. In addition to its work with UK credit unions, NDCFCU has also had some exchange with credit unions in the former Soviet Union, but Rosenthal says that "they're much less advanced at this time".

Ironically, downturns in the mainstream economy are not necessarily a problem for CDCUs, at least in the short term: in contrast to other lending institutions, these credit unions stand to gain clients during economic hard times. As Myers explains about Alternatives, "We're an entrepreneurial organization. We serve underserved markets. An economic downturn means that there is more market share available to us." In fact, his credit unions' main challenge has nothing to do with the economy. "As a federally regulated and insured financial institution, our challenge is convincing our government overseers that our unusual model is not a risk to their insurance fund."

There has clearly been a great deal of creativity involved in the survival and growth of CDCUs in the US. Myers and his colleagues are now wondering how to best replicate their model. "Branches? Franchise? A 'How To' kit?"

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Vermont Development Credit Union, 18 Pearl Street, Durham, NC 27702, tel +1 802 865 3404, fax +1 802 862 8971.

Self-Help Credit Union, 301 W Main Street, Burlington, VT 05401-4330, tel +1 919 954 4400.

National Federation of Community Development Credit Unions, 120 Wall Street, tenth floor, New York, NY 10005, tel +1 212 809 1850, fax+212 809 3274.

A PDF document called "Life Saving Community Development Credit Unions", which describes the CDCU movement in the US and UK in more detail, was published by the New Economics Foundation in July 2003. It is written by Mick Brown, Pat Conaty and Ed Mayo, with a preface by Cliff Rosenthal, and can be downloaded from the New Economics Foundation website at this link:  
<http://www.neweconomics.org/gen/uploads/av5hqie10gcdgtjobqz1ze5505082003154236.pdf>

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In addition to the Business Development Fund, another fund called the Key Loan Fund has been established, specifically to benefit social enterprises in Birmingham, such as charities or companies limited by guarantee, which reinvest their surpluses into community support. This fund, which initially received partial support from the European Union, provides loans at very low interest rates - 1.25% above base rate - to help with the purchase of property and assets and to assist with cash-flow.

A third subsidiary of ART, ART Homes, has also been launched, with the goal of "delivering affordable loans for property repair and maintenance to homeowners who cannot access mainstream finance." ART Homes works in partnership with Birmingham's House Proud scheme, which works to improve the living conditions of older homeowners and those with severe difficulties in Birmingham. It is also researching the possibility of forming Community Land Trusts in some areas of Birmingham.

"Energy Saving" loans are also made to small businesses and voluntary organisations in Birmingham for capital expenditure on energy saving initiatives. Repayment on loans is helped by savings in fuel consumption and a related interest rebate. (Some other policies and initiatives for promoting energy efficiency in the home are discussed in Chapter 5).

ART has benefited from national government funding; it was awarded shares in the first and second rounds of the Phoenix Fund, which is dedicated to helping enterprise in disadvantaged areas. Walker says "the award... will help us in plans to double our loans over the next two years, which means continuing to bring in new capital resources". If the goal of £3 million in loans were reached, the fund would become able to fully cover the maintenance of its office from the returns.

ART's website is at [www.reinvest.co.uk](http://www.reinvest.co.uk). ART Share Ltd., The Rectory, 3 Tower St, Birmingham B19 3UY, tel +44 121 359 2444, fax + 44 121 359 2333, e-mail [reinvest@gn.apc.org](mailto:reinvest@gn.apc.org).

#### Other Reinvestment Trusts in the UK

Pat Conaty comments that "ART has been copied widely and further developed as a practical concept in many interesting ways". He himself no longer works at ART, but has been involved with the establishment of similar community reinvestment trusts elsewhere in the UK, such as the London Rebuilding Society, which, he writes, "has developed links with JAK Bank in Sweden and hopes to introduce interest free lending products in the future as well". The LRS specializes in finance for social enterprises and began lending in the spring of 2002. Its loan funds include the London Ecology Action Fund, known by the clever acronym LEAF, which will "offer advice and loans to help social economy organizations 'green up' their premises" (quote from LRS website), and the Mutual Aid Fund, which will be a 'credit union' style fund, enabling social economy organizations to borrow small sums against reserves for needs such as training or buying equipment. This fund builds on original ART ideas for a Social Enterprise Economic Development (SEED) Fund which Conaty says "was never funded in the 1997-1999 period despite much effort". The Mutual Aid Fund was launched in London on 10 October 2002. Conaty comments that "LRS is emerging with similarities as a mutual to some of the larger CDCUs like Alternatives Federal Credit Union in Ithaca, New York and Self-Help Credit Union in North Carolina".

LRS is also developing an LRS Homes Fund like the ART one in Newham, East London. Its draft report will be launched in Spring 2003. Conaty writes, "[the LRS's] research findings and success with ART Homes Fund to date, with its first 30 loans in Birmingham, have stimulated several CRTs to develop Homes Funds. These include PART in Portsmouth (see below), Salford Moneyline and Derby Loans. We are seeking a way to co-develop these regional housing funds through co-teaching and close networking."

The New Economics Foundation and London Rebuilding Society have hired Jerker Nordlund of JAK Bank Sweden to help develop a Housing Fund for London on interest free principles. Like JAK Denmark, the LRS plan as it is emerging is to offer traditional and interest free products side by side, and steadily win people over through making such goods available and providing education on the concept of interest free loans. The idea, Conaty explains, is "to work from the status quo slowly towards a new solution". It is also looking into the provision of loans to customers who don't have savings, by means of Grameen-Bank type lending circles.

Karl Dayson and Bob Paterson, colleagues of Conaty's at the University of Salford, have done extensive research into the development of Community Reinvestment Trusts. Their website is at [www.communityfinance.org.uk](http://www.communityfinance.org.uk). Paterson himself has developed several new CRTs, including Portsmouth Area Regeneration Trust (PART) and Salford Money Line. These trusts are particularly geared to helping local people with very low incomes, for example by providing cheque cashing services and loans to meet domestic emergencies, thus preventing loan sharks from moving in. PART shares its office space with a fledgling credit union, the Portsmouth Saver's Credit Union, and it intends to pass its customers on to the credit union when they achieve financial stability.

Paterson's model for Community Reinvestment Trusts (CRTs) puts strong emphasis on the role of social housing associations as possible sources of advice and funding. These associations, which are not-for-profits, provide housing to low-income people in Britain. The British government is currently encouraging them to diversify the investment of their surplus funds by putting them into a broader range of social enterprises. CRTs could be ideal for them to invest in, and the CRTs could reciprocate by helping the housing associations in various ways. For example, the CRTs could work with them to find innovative ways to deal with the problem of rent arrears, by providing an advisory service to help landlords and tenants to come to agreement about reduction of late rent. A similar programme, the Money Advice and Budgeting Service, has been very successful in Ireland. CRTs could also buy the debt from the housing association, and then re-finance it so that the tenant is able to pay it back more easily. CRTs can also provide credit to private homeowners who are unable to afford repairs for their homes, as with ART's Homes Fund.

#### The Wessex Reinvestment Trust

A new kind of Trust, the Wessex Reinvestment Trust, was launched in September 2002. It was developed by Paterson, Conaty and Tim Crabtree, a community activist and the former co-ordinator of the New Economics Foundation, who promotes local food production in Dorset. The researchers gathered information about what sort of assistance the Trust could provide by distributing questionnaires to local small businesses, social enterprises and voluntary organisations.

The WRT is intended to take the idea of community reinvestment in several new directions. It is the first European rural CRT. Conaty explains that "it seeks to pioneer Community Land Trusts for affordable housing and affordable farming in the rural South West (West Dorset, Somerset and Devon)". There are also plans to encourage local renewable energy production. The WRT therefore unites three ideas described in the original text of *Short Circuit* - the idea of community-based investment as described above, the idea of locally-produced energy as described in Chapter 5, and the idea of community land trusts, as described in Chapter 6.

The Business Plan for the WRT explains that "rural economic development needs are often linked, whereby somewhere to 'live and work' and the provision of workshop space and loan finance for business enterprise are in many instances supplementary and complementary to each other." (p 7). The rural South West is suffering from a shortage of housing for low or even middle-income people, with retirees and well-off city people buying up the existing houses to use as holiday homes. Planning permission is very strict and it's hard to build in open space, but it may be possible to deal with the problem creatively by bringing it under the umbrella of the Reinvestment Trust and forming land trusts.

The WRT will have loan funds available for microcredit, and an energy-saving loan fund similar to London Rebuilding Society's LEAF. The microcredit loan fund is intended to provide loans for small businesses in the area, as with the other Trusts, but also to encourage local sustainable agriculture by providing loans for organic farmers and farmers who market their food locally. At present, 70 to 80 per cent of organic food in Britain is imported, and the demand for organic food in the EU generally is expected to increase by a rate of 40 percent per year, so there is clearly a large potential market for organic produce.

Local farmers in the UK have a very low share in the sale price of their food - only 7.5 per cent - and this naturally causes a financial strain. Farmers in France, by contrast, retain an 18 per cent share in their sale price. This comparative financial strength of French farmers is thought to have

*Short Circuit* by Richard Douthwaite: Chapter Four



arisen for several reasons: a greater proportion of food in France is grown locally, local farms and other groups are more likely to "add value" to their food (eg by making milk into cheese) right in the area rather than exporting it as a raw product, and there are stronger farmer organisations which can effectively negotiate with the food industry. The Trust is therefore hoping to encourage the development of small-scale food-processing businesses and distribution co-operatives. There is also expected to be a growing demand for local food in the future, as people become more aware of its environmental and economic benefits.

On the subject of renewable energy, the WRT business report describes a government scheme, launched in 2002, whereby National Wind Power pays the capital investment costs for three turbines on a farmer's land for a cost of £1 million and the farmer shares in the profits of, say, £4000 a year. The British Wind Energy Association is looking for farmers to develop at least 100 schemes like this. The WRT is also looking into encouraging bio-mass and micro-hydro in the area. In addition, there is the potential for other environmentally-related enterprises such as recycling to develop there.

Information about the British government's policies concerning community credit can be found at the Social Investment Task Force website. In the US, similar schemes exist for Community Development Financial Institutions such as the Women's Self-Employment Project in Chicago, described elsewhere in this chapter.

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Against this, at least three other groups involved in ethical investment have recently decided not to attempt to become banks and have used the British Industrial and Provident Society acts - which are basically the same as those in Ireland - to become provident societies. The pioneer was Shared Interest in April 1990. This grew out of a wish by Traidcraft plc, the alternative trading organisation based in Newcastle, to set up an institution to lend largely to groups of producers in the Third World, although poor people anywhere would have been eligible. Traidcraft was already making loans to co-operatives and similar bodies overseas to help them produce the goods it sold through its catalogue.

Traidcraft's original plan was to persuade one of the high street banks to offer special ethical deposit accounts which would place 75% of the investments they took in with the new fund and 25% on the money markets in order to maintain liquidity. Four banks considered the proposal but eventually turned it down as they felt they would have to remain entirely responsible for whatever happened to their customers' money. The possibility of raising capital by selling shares in an investment company was also explored but rejected since no-one was confident that an adequate amount would be subscribed within forty days after the publication of the prospectus, the maximum period the law allowed. Then Chris Ruck, a former chief executive of the Co-operative Bank suggested forming an Industrial and Provident Society, since shares could be sold without issuing a prospectus.

This course was adopted. The legal work involved was carried out by a Leeds solicitor, Malcolm Lynch, who was later involved in two similar formations, one of which was

Radical Routes Ltd., a Birmingham-based co-op of co-operatives which by mid 1994 had raised over £100,000 from investors to provide its member co-ops with loans they found impossible to obtain from the banks.

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2002 update by Caroline Whyte

Radical Routes continues to provide financial support and advice to its member co-ops. Its website lists as members 22 housing co-operatives, many of whose members maintain organic gardens and include social and political activism as part of their co-op's mission. There are also 6 member worker co-ops which include a printing press and a fair trade shop, and 3 social centres, one of which acts as a base for three worker co-ops. The co-ops are located in various parts of England, Scotland and Wales.

Radical Routes has set up a social investment society for people who are interested in investing in co-ops, called Rootstock. The Radical Routes website also includes information about its publications, which include a book on how to set up a worker-co-op and a member's directory.

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The other was ICOF Community Capital, launched in 1994 by Industrial Common Ownership Finance Ltd (ICOF), to provide loans for community enterprises. ICOF, a not-for-profit company limited by guarantee, had itself been set up twenty-one years earlier to provide funds for workers' co-operatives and, like Mercury, found that too few people were prepared to buy zero-interest membership shares to allow it to expand. To get around this problem it launched a public limited company, ICOF plc, in 1987 which was able to raise £560,000 by the sale of non-voting preference shares. But the costs of this issue were high - £50,000 - and because the shares have to be repaid in 1997, ICOF is already having to set aside funds reducing the amount it can lend. As a result of this experience, it decided not to take the plc road again.

"Social economy businesses have had problems with accessing money from mainstream finance organisations" ICOF Community Capital said in its prospectus. "Traditional institutional investors are sceptical about any legal structure which denies personal wealth accumulation and emphasises common ownership and local democracy.... We recognise that [the] level of profitability [of social economy businesses] may be constrained by the achievement of social or environmental profit and we expect our investors to share this recognition. We accept money as an investment and although no guarantee can be given, it is expected that results will enable interest to be paid. It will be a goal to provide interest in line with inflation. The minimum investment is £250, the maximum is £20,000 and normally withdrawals can be made on six months' notice. We hope the monetary value of your investment will be maintained but it may go down."

Despite these and other warnings, such as the right of the Trustees to suspend withdrawals which in any case can only be made on six months' notice, Community Capital received deposits of £140,000 in its first four months. Threequarters of the depositors waived their interest payments to allow them to be used to build up a guarantee fund to cover any loan losses which are incurred, thus increasing the safety, if not the return, of their investments.

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#### 2002 Update on ICOF by Caroline Whyte

Since 1996 ICOF has increased its lending capacity to £4 million sterling. This increase was brought about partly by a further share issue under the Community Capital programme. Capital was also raised by means of a second PLC issuance of shares in 1997. According to Andrew Hibbert, Development Officer at ICOF, the share issue route "provides the best way of raising stable capital", and so is worth following despite the challenges of funding it. A third, smaller PLC issuance also took place, targeted solely at existing shareholders.

The Community Capital program is now focusing on forming partnerships with Regional Development Agencies (RDAs) in Britain. Thus, its focus has become more localised than previously. In this it has been considerably aided by the current Labour government, whose policy of trying to promote regional development has led to the setting up of the RDAs with a remit to promote social enterprise. The first region to be covered under this programme will be the East Midlands, and the hope is that the programme there will be underway in September 2002.

ICOF is also hoping to develop stronger links with the mainstream consumer co-op movement in Britain. The consumer co-ops are retail societies, some of them established in the 19th century. Although many of them fell on hard times over the past few decades, recently they have rebounded and become profitable again. Andrew Hibbert thinks that this rebound largely came about because the societies have rediscovered their co-op roots and there is more commitment within the general public to the field of co-operation than there used to be.

These large consumer co-ops have been looking for ways to invest their funds, and so ICOF is joining with them to form the Co-operative Action Foundation, which is a loan and grant fund whose aim is to provide funding to innovative co-ops. Hibbert thinks that this foundation could lead to ICOF playing a much bigger role in the nationwide co-op movement in the future.

ICOF's website is at [www.icof.co.uk](http://www.icof.co.uk), and the Head Office address is 227c City Road, London EC1V 1JT. Tel 020 7251 6181, fax 020 7336 7407, e-mail [icof@icof.co.uk](mailto:icof@icof.co.uk)

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In Ireland no similar provident society has been established in recent years and an official at the Registrar of Friendly Societies' office in Dublin described them to me as 'a dying breed', their historic role in mobilising workers' savings taken over by the country's highly successful credit unions. However, Malcolm Lynch is confident that the legal work involved in forming one would present no difficulties since Irish law is still based on the original British Act. He estimates that fees, including Stamp Duty, would be between £1,500 and £2,000.

Workable legal structures therefore exist, three in Ireland, two in Britain, which community groups could use to set up their own enterprise loan funds. These are the limited company and the provident society models in both countries and the credit union format in Ireland where Britain's stifling £5,000 loan limit does not apply. But although these structures exist, all the organisations using them are very small and lending very little. Even the best-known, Mercury, had more limited resources before its merger than any of Ireland's twenty biggest credit unions. Moreover, apart from TILT and the emerging Aston Reinvestment Trust, all have a national rather than a local focus. And, except for Mercury, their bad-debt record is generally poor. Could these problems arise because they are using the wrong approach?

And what about interest rates? Although some Mercury and Community Capital savers have shown themselves willing to accept little or no interest from organisations whose aims they support, community businesses seem unlikely to be able to get enough low-interest funds through local organisations modelled on the lines of those we have just discussed to enable them to compete with multinational corporations. And even if they could, what would be a reasonable interest rate to demand from a local business? Should interest be demanded at all?

Economists justify charging interest by arguing that people need to be rewarded if they are not to spend all their money the moment they receive it and agree to allow others to use it temporarily instead. However, their argument is flawed as most people would still save if they were paid no interest at all because everyone faces financial uncertainty and likes to have something put by for a rainy day. Moreover, everyone grows old and wants to have savings to draw on when they retire. What people need to be paid for, then, is not saving itself but allowing others to use their savings instead of hiding them in their mattresses. After all, there is a real risk if they lend their money that it will not be paid back. In addition, if a borrower benefits financially from investing someone else's funds, it seems right that part of the benefit should be shared with the saver who made it possible.

Then there is the question of inflation. While people still wish to save when inflation is rapid - indeed, there is evidence that they save a higher proportion of their incomes in order to maintain the real value of their security cushions - they will want to put as much of their savings as practical into assets such as land or antiques which can be expected to

retain their value in relation to other goods and services and which can be converted back to cash by being sold later on. If people are to agree to keep their wealth in money in order that others might use it, they therefore need to be compensated by the borrowers for any loss of purchasing power.

In summary, then, a fair interest rate does three things: it rewards the lender for the risk he or she runs when making the loan; it compensates for any loss in the purchasing power of money; and it shares between borrower and lender the benefits which flow from the way the money is used. In practice, of course, reasons one and three can be rolled into one: the promise of a share in the potential benefits should cover the risk inescapably involved in making a loan.

Despite these justifications, the charging of interest was condemned by the Roman Catholic Church until the 1830s and Islam still bans it today. Indeed, many thoughtful people of all faiths and of none continue to have serious reservations\*. One root of their unease runs back to the time when gold was used as currency. Since gold did not increase itself, and very little was being mined, where, people asked, was the extra bullion to come from to pay the interest when both principal and interest had to be handed over at the end of the year?. Obviously, the borrower could only obtain more gold if someone else had less, so lending money at interest meant that either the borrower impoverished himself when he paid over the extra or he impoverished someone else. And, as neither outcome was socially desirable, usury, as all forms of moneylending were called no matter how low the interest rate, stood morally condemned.

Even though we now use paper currencies, this source-of-interest problem has not gone away. As we saw in the discussion of the Guernsey Experiment in the last chapter, almost all money in circulation is issued on loan. This means that money to cover interest payments can only be obtained by borrowers if other borrowers have borrowed sufficiently more. Moreover, the necessity to pay interest on these additional borrowings means that the economy needs to expand if the proportion of world income which is paid over in interest to the lenders is not to increase. This in turn explains why the capitalist system is unsustainable: it depends on borrowing money at interest which can only be paid without impoverishing the borrowers if the economy grows. If growth stops, the borrowers find themselves having to service loans which have not generated any return.

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\* Keynes, for example, in his *General Theory* set out fifteen arguments against charging interest, the chief of them being that 'the average rate of interest which will follow a reasonable average level of unemployment is one so unacceptable to wealth-owners that it cannot be readily established'(pp.308-9). Such a low interest rate 'would mean the euthanasia of the rentier, and, consequently, the euthanasia of the cumulative oppressive power of the capitalist to exploit the scarcity-value of capital'. He adds: 'Interest today rewards no genuine sacrifice...There are no intrinsic reasons for the scarcity of capital' (p. 376).

Their profits fall and they therefore cut back on their borrowing and investing the following year, throwing out of work many of those who would have built the factories, shopping centres and office blocks they would otherwise have ordered. This cuts demand and, unless governments take up the slack by borrowing themselves in order to spend more to compensate, the economy sinks into a depression. In short, the borrowers' need to pay interest means that governments have no choice but to allow growth to continue, despite the damage that the changes involved may well do to the natural environment, to communities and to the social order. Consequently, whether we are concerned with countries or communities, without an economic system which avoids interest we cannot hope to achieve a sustainable way of life.

Muslim economists have been trying to develop such a system. They reject the payment of interest because of what they see as the basic injustice of transactions in which the borrower has to return more than he or she received. "An equitable transaction is equal for equal. Usury is something for nothing" write Fazlun Khalid and Umar Ibrahim Vadillo, both members of the progressive Murabitun movement of European Muslims, in a crystal-clear 1992 essay 'Trade and Commerce in Islam'.<sup>7</sup> "The profit of usury is like a parasite in the market - it sucks wealth without giving anything in return. The parasite forces the market to increase artificially in size, like a diseased body, just so it can feed. But as the market grows, the parasite also grows. Usury produces an imbalance in natural trading, and this has now penetrated everything."

They explain that Islam forbids the taking of a guaranteed fixed return on an investment regardless of the way the investment turns out. "A profit from money can only be justified if it is invested in a business and that business produces a profit. Money by itself cannot produce a profit. Islamic law requires that the investor shares both in the success and the failure of a venture [according to a] mutually agreed contract."

The only way that devout Muslims can therefore hope to make a profit by letting someone else use their savings is by taking what is effectively a share stake in the borrower's venture, recovering their money when it is completed, or by selling their shares in it later on. Anyone wanting avoid the risks inherent in putting all their savings in one project would have to join with other investors and set up a fund to take shares in a number of businesses, a route which would also make it easier for them to get their money out. Umer Chapra, an economic adviser to the Saudi Arabian Monetary Agency, proposes exactly this approach in his 1985 book *Towards a Just Monetary System*,<sup>8</sup> which is essential reading for anyone interested in how a zero-interest financial system might be built. However, as Chapra points out, Islamic law imposes two requirements on such funds. One is that all those who have invested in a venture have to have equal decision-making powers regardless of the amount they have invested because one party would otherwise have an advantage and the others would cease to be effective owners. Voting at shareholders' meetings has therefore to be on the basis of one shareholder, one vote, exactly as with a co-operative society. The other stipulation is that the results of the

venture are shared among the co-owners in proportion to their investments, which need not be in cash or property: time, skill and effort can counted as investments as well.

Chapra, who holds a PhD from an American university and taught economics in the United States, devotes a chapter of his book to countering conventional arguments that an interest-free system would lead to a misallocation of resources or simply would not work. On the contrary, he argues, it would be more efficient since a would-be profit-sharing investor would undertake a much more careful investigation of a potential project than does a conventional, interest-oriented lender who shifts the entire risk to the entrepreneur by demanding property deeds or other types of security for his loan, thus assuring himself of a predetermined rate of return irrespective of the success of the borrower's business.

Moreover, Chapra says, the use of interest rates to allocate capital between competing borrowers is itself inefficient:

The rate of interest tends to be a 'perverted' price and reflects price discrimination in favour of the rich - the more 'credit-worthy' a borrower is supposed to be, the lower the rate of interest he pays and vice versa. The result is that 'big' business is able to get funds at a lower price because of its 'higher' credit rating. Thus those who are most able to bear the burden because of their bigness or claimed 'higher' productivity bear the least burden. In contrast, medium and small businesses, which may sometimes be more productive in terms of contribution to the national product per unit of financing used and at least equally 'credit-worthy' in terms of honesty and integrity, may be able to secure relatively much smaller amounts at substantially higher rates of interest. Hence many potentially high-yielding investments are never made because of lack of access to funds which flow instead into less productive but 'secure' hands.

Therefore, the rate of interest reflects, not the 'objective' criterion of the productivity of the business but the 'biased' criterion of 'credit rating'. This is one reason why in the capitalist system, big business has grown bigger beyond the point dictated by economies of scale, thus contributing to monopoly power, while small and medium businesses have often been throttled by being deprived of credit. This is particularly so when interest rates rise and create a liquidity crunch by reducing the internal cash flows. Small businesses are rarely given a respite by the lending banks. Loans to them are called in at the slightest sign of trouble, thus causing widespread bankruptcies. However, when big businesses are in trouble, there is rescheduling accompanied by additional lines of credit. Does this indicate an optimum allocation of resources or an efficient banking system?

Instead, if credit is made available on the basis of profitability, then not only will the banks be more careful and rational in evaluating projects but also small, medium and big business would stand on an equal footing. The higher the rate of profit, the greater will be the ability to secure funds. Big business, if it is really more profitable, should pay a higher and not smaller rate of return to the lending institutions. The Islamic system could reflect an innate ability to favour entrepreneurs with talent, drive and innovation but who, as Ingo Karsten has put it [in a March 1982 IMF staff paper, 'Islam and Financial Intermediation'], 'have not yet established their credit-worthiness'. Thus resources would not only be more *effectively utilised* but also *equitably distributed*. (Italics in the original)

Chapra claims that a zero-interest system would also lead to greater economic stability since, as all companies would be debt-free, they would not have to make interest payments during economic downturns. This would avoid the human and material waste that occurs whenever businesses close and are sold up at the bottom of the trade cycle, only for the lost capacity to be replaced when prosperity returns. Chapra believes that the recent growth of corporate borrowing in the US is an ominous development because it raises firms' break-even points and makes them more vulnerable to cyclical downturns by increasing their fixed costs and quotes Milton Friedman's reply to the question 'what accounts for the unprecedently erratic behaviour of the US economy?' - "The answer that leaps to mind is the correspondingly erratic behaviour of interest rates".

Even *The Economist* magazine likes Islam's theoretical framework for a zero interest economy: 'It gives the provider of money a strong incentive to be sure he is doing something sensible with it' it wrote in 1994. 'What a pity the West's banks did not have that incentive in so many of their lending decisions in the 1970s and 1980s. It also emphasises the sharing of responsibility, by all users of money. That helps to make the free-market system more open: you might say more democratic.'<sup>9</sup>

But have Muslims established an interest-free economy anywhere, or at the very least, opened a successful zero-interest investment fund in an industrialised country which could be taken as a model by believers and non-believers alike? The answer to both questions is, unfortunately, no although Dr El Naggar appears to have established a successful rural profit-and-loss-sharing savings bank in Egypt in the 1960s. This failed, however, when it was taken over by the state under President Nasser and radically remodelled so that it ran on over-ambitious top-down lines. "The sad reality is that .... there is not a single Muslim country which is running its financial institutions without resorting to interest. The fact is that no-one knows how to do it and when political pressure mounts, they can only resort to some kind of subterfuge" writes Shaikh Mahmud Ahmad in his 1992 book *Towards Interest-Free Banking*.<sup>10</sup>

Why is this? Fazlun Khalid blames western-educated Muslim economists like Chapra for advising Muslim countries to 'set up central banks and issue worthless paper money'. "They wield enormous influence on the rulers of Muslim states who are committed to the west-engineered development model" he says. Chapra is particularly suspect because he wrote in 1992 that Muslim governments were 'juristically permitted' to charge interest in particularly difficult circumstances and also perhaps because he advises the Saudi Royal Family which permits western banks to operate extensively in its country.

Khalid also thinks that there is not a single truly Islamic bank operating anywhere at present and says that those banks which claim to be Islamic either charge interest or do things which are also condemned as usury by Islam such as creating money by issuing loans greatly in excess of the amount of savings they hold on deposit, just as conventional



banks do everywhere in the world. The use of paper money, cheques and plastic cards as money also amounts to usury because it leads to inflation.

Accordingly, the Murabitun movement has minted gold coins in Scotland, Spain and Germany and is using them to enable its members and others to trade across Europe without needing cheques, plastic cards or paper money. "Special markets are being organised in which there are three zones - a white zone, in which paper currency can be used, a grey zone for either gold or paper currency, and a green zone restricted to gold and barter. We've got to start from where people are but we obviously want them to move out of the black zone as time goes on" he told me at the end of 1995. "The prototype of these markets was held in Birmingham in 1992 and they have since been held in Grenada in Spain, Amsterdam and Zurich. Umar Vadillo who lives in Scotland is the driving force behind them."<sup>11</sup>

Despite Islam's failure to provide a suitable model, interest-free community banks do exist, and are functioning successfully in the Nordic world. In Denmark, in fact, they are offering the conventional banks such strong competition that improper means might have been used to get one of the most expansionary of them closed down, as the story in the panel tells.

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#### PANEL: RURAL BANK OFFERS INTEREST-FREE LOANS

"We started our bank here in this room in January 1975 and took the first deposits across this table" Inger Marie Ebbesen, told me in the plant-filled living room of her dormer-bungalow in Grølsted, a tiny village near Fårvang, halfway between Århus and Viborg in Jutland. Outside, on three sides of the yard, are the brick-built outbuildings where her husband, Jorgen, raises pigs. "Ellen Clausen, my sister-in-law, and our two husbands were the first directors and we started with just three or four accounts."

Mrs. Ebbesen had had no experience of running a bank when they began. "But I had worked in the accounts department of a bacon factory, and that's about the best commercial training you can get in Denmark" she says. Another thing which helped was a wave of anger some of her neighbours felt when the JAK Co-operative Bank, where some had kept accounts since the 1930s and which charged no interest on certain categories of its loans, was taken over in 1972 by an ordinary commercial bank, Bikuben, after running into liquidity problems. "The introduction of pay-as-you-earn income tax in 1969 had affected deposits from the JAK bank's salaried customers and it lost some big municipal accounts as a result of a local government re-organisation" she explains.

The merged bank had been part of the wider JAK movement whose members were not prepared to see the no-interest principle for which it had stood forgotten. Many of them, like Mrs Ebbesen's team at Grølsted, helped set up at least twenty other local co-

operative savings banks - Faelleskasse - to replace it, mostly in rural areas. All these micro-banks were legally barred from accepting deposits or making loans to people who did not live in the parish in which they were situated and the parishes immediately adjoining them. All were - and are - independent, controlled by their own boards of directors who set the terms on which loans are made.

"The JAK movement was set up in 1931 by a great Danish thinker, Kristian Englebrecht Kristiansen, who had seen as a child the difficulties his parents had faced in paying interest after they had been forced to farm very poor, heather-covered heathland after moving out of Holstein during the German take-over. He believed that real capital was created when barren, worthless land was made fertile, just as his parents had done, and that money was merely a means of exchange and a standard of value, which in itself produced no return. The charging of interest therefore led to the concentration of wealth, the increase of indebtedness and the growth of unemployment. One of JAK's first projects was to issue its own currency, backed by the capital represented by its members' land, in order to reduce indebtedness. This circulated widely in this part of Denmark until the government prohibited it in 1932 " Ebbesen explains. "The initials JAK stand for Jord (land), Arbejde (labour) and Kapital."

All the new faelleskasse had similar rules: loans could only be made to members and members had to be shareholders. Each share at Grølsted cost 1,000 Dkr (approximately £100), paid no interest and could not be cashed in although it could be sold to other members. These shares represented the capital which was at risk if the bank ever failed and their total amount determined how much the bank could lend since the law prohibited it from increasing its total loan book to more than twelve times its share capital. No matter how many shares they held, each member had only one vote but members who risked their capital in this way could borrow 1.5 times the face value of the their shares for up to 20 years, depending on the additional security they provided, and they could top up these loans whenever half of them had been repaid, subject only to a setting-up fee and 4% per annum service charge to cover the cost of administration.

Alternatively, members operating current accounts at the Grølsted bank could get an interest-free 'turnover loan' on the basis of their average balance, subject to setting-up fee and an administrative fee of 1% a quarter. Thus if one had maintained an account with an average balance of 10,000 Dkr for a year, one could borrow 10,000 Dkr to be repaid by quarterly instalments over two years, or 20,000 Dkr if one could pay off the loan in a year.<sup>14</sup> One-year time deposits entitled members to consideration for longer-term loans, such as mortgages, for up to thirty years, with a service charge of only 2% a year, but the board naturally varied the number of these they approved according to the level of available funds. They also demanded suitable security.

Essentially, then, the Grølsted bank either loaned you as much of someone else's money for as long as you had placed a similar sum in your current account for it to loan to other members, or, with its time deposits, operated a queuing system rather like that once used by those British and Irish building societies which required members to build up a substantial sum over the years before they could be even considered for a house-loan. It would also lend you back the money you had put at risk to in buying your shares provided that you put up additional security.

As a result of a change in the law in the late 1980s, the bank was able to convert itself in the late 1980s to an Andelskasse, a full service bank offering cheque book services exactly like the mainstream banks. It boomed and had to convert a detached house about a hundred metres from the Ebbesen's farm into offices so that it could cope. "We were opening an average of five new accounts a day and seemed to be taking on a new member of staff every two months" Mrs. Ebbesen says. "Both costs and earnings grew rapidly. Too high costs can kill a business such as ours - operating accounts is expensive." To help spread these costs, the bank began accepting interest-bearing deposits, particularly pension funds, from members and lending them out at standard bank interest rates. And, since it was now legally permitted to do so, it began advertising membership to people living outside its local area. Most of these new shareholders either had family links with the Grølsted district or lived in places where there was no local JAK bank. The bank became one of the largest in the movement and Mrs. Ebbesen was elected president of the JAK National Association in its diamond jubilee year, 1991.

Naturally, the growth of the bank and the prominence of its manager attracted the attention of both its conventional competitors and of the Danish regulatory authorities. In 1990, its auditor recommended that someone with conventional banking experience should be brought in to run the business, and as a result, Jens Jensen joined in May 1991, succeeding Mrs Ebbesen at the end of that year. "We had had big losses in 1986 and 1987 because a builder to whom we had lent money could not sell his houses. A loan to a camping-goods warehouse also went bad. However, our reserves were adequate to cover the situation" she says. "Handing over the management suited me because I wanted more time to involve myself in promoting the movement generally."

But in September 1992, only nine months after Jensen had taken over, the bank was closed by government order. "We were expanding rapidly, and this meant that we were becoming a substantial threat to the established financial system. This, and the jealousy of some of the other JAK banks is the reason we were closed" Mrs Ebbesen says quietly. "The government inspectors claimed that more people were entitled to no-interest loans than our share capital allowed us to provide as a result of the losses and said that we needed to sell more shares to make things up. This was impossible, because the shares at the time were trading at less than their nominal value. So at a meeting in Copenhagen which only the manager attended, the bank was given an ultimatum - start charging interest on all new loans in order to rebuild the capital base."

An extraordinary general meeting of the 900 shareholders was called to discuss this demand and Mrs. Ebbesen is adamant that something could have been worked out given the level of goodwill and support which most depositors felt for their organisation. Capital injections from other banks in the JAK system were also a possibility. But the meeting was never held. The day beforehand, the bank was closed down. "Why? That's what I'd like to know! There were no discrepancies and everyone will get 100% of their money back" she told me nine months afterwards as we peered through the windows of the empty offices. "I've been made to feel like a criminal and they've been going through the books for technical infringements of the rules. It's been very difficult because most of my neighbours were depositors. Do you know, one inspector actually said that they

could not permit a bank to operate in a ploughed field" she adds, pointing at the rich brown farmland that runs almost right up to the office door.

She agrees that if the bank had not paid interest to depositors and made conventional interest-bearing loans and had thus stayed small, it would not have been closed down. However, she has no regrets about trying to expand when she did. "The circumstances were right - salaries in Denmark had gone up and inflation had stayed low, so people could save a lot. You've got to take these chances when they come. After all, the bank had been trading for 15 years and the movement for sixty. If I'd have continued as manager everything would have been all right. Our deposits would have increased to 100m. Dkr and then grown more slowly."

When I spoke to her last at the end of 1995, 39 months after the closure, Mrs Ebbesen was determined about two things. One was that she would win her court battle to allow the bank to re-open. "My lawyer says we will get it back. It's quite clear we should never have been closed because enough loans have been repaid by borrowers to allow the depositors to get all their money back." The other was to spread the JAK idea throughout the European Union. "Since 1988, any bank setting up anywhere in the EU has been required to have 5m. Ecus capital behind it. This means that it is now impossible to start a bank the way we did. However, a bank that is registered in one EU country is permitted to trade in them all, so my idea is to run training courses here on the farm so that people can set up banks in their own countries which are part of the JAK system. I've already started working with groups in Belgium and Holland."

*2002 update by Caroline Whyte*

Inger Marie Ebbesen's bank has been officially cleared of any financial problems. The creditors got back 98.59% of the funds they put into the bank. However, the fees for the lawyers and accountants she was forced to hire came to approximately 18 million kroner, which meant that the bank has been unable to open again. She is considering taking further legal action to try and recoup those funds.

Inger Marie Ebbesen, Thorsovej 92, Grølsted. 8882 Fårvang. Denmark. Tel 86-871095

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But the best example of what a community bank can achieve and how the interest rate problem can be handled is provided by the Lankide Aurrezkia - the Working People's Bank, or in Spanish, the Caja Laboral Popular - which operates largely in the Basque region of northern Spain. It is, however, impossible to describe how this bank came to be set up and how it operates without also telling the story of the Mondragon co-operatives which now employ 21,000 people in the same area and in whose expansion the bank played a crucial part.

The bank and the co-operatives owe their existence to a one-eyed priest, Don José Maria Arizmendiarieta, who was so unimpressive when in 1941 aged 26, he was appointed to work as assistant curate among young people in Mondragon, a steel town of some 8,500

*Short Circuit* by Richard Douthwaite: Chapter Four

inhabitants, that some of his parishioners wished the bishop would re-assign him. "He spoke in a monotone with intricate and repetitive phraseology difficult to understand. He hardly even [read] with grace" someone who became a close colleague wrote 45 years later.<sup>12</sup>

One of Fr. Arizmendiarieta's duties was to teach classes in religious and human values at a school run for its apprentices by the town's steelworks. This was the only secondary school of any type in Mondragon and demand for places far exceeded the supply. Fr. Arizmendiarieta therefore asked the steel company to expand the school, offering to help raise part of the extra cost. The company refused, so the priest decided to open a technical school of his own. He had boxes placed on street corners in which people could post offers of labour or cash and, when they were opened, a quarter of the town's households had offered concrete support.

The school opened in December 1943 with twenty pupils and added a higher class each year so that, by 1952, there were 170 students and eleven members of the first intake had just completed an external engineering degree from the University of Zaragoza. These men - the first Mondragon workers' children ever to graduate - had been meeting Fr. Arizmendiarieta each week and it was through them he developed his plans. However, he also held hundreds of meetings with other groups and by 1956, it was estimated that since he had come to the parish in addition to his teaching he had conducted over 2,000 small group discussions and a study session on average every 2.7 days.

Five of his eleven disciples went to work with the steel firm and when it decided to increase its capital by issuing more shares, they asked that the workers be allowed to subscribe for them. The company refused, convincing the five that it was impossible to democratise this particular capitalist company from within. Accordingly, they decided to start their own company, and set about raising money from friends. Eventually, they raised 11m. pesetas from a hundred people on nothing but the strength of their personal promises. This was equivalent at the time to \$362,000, a huge sum from a working class community, and in 1955, it was used to buy a bankrupt factory making paraffin stoves in Vitoria. The plant was moved to Mondragon and opened in 1956 with 24 employees under the name Ulgor - a composite of the initials of the surnames of the five men - to make copies of a British-made Aladdin stove the group had purchased in France and stripped down. Only some time later did Ulgor regularise its position by buying the Spanish rights. Demand for stoves was strong and Ulgor soon began designing its own, buying an existing foundry in the town so as to be able to make all the parts. A few months later the firm added a range of electrical equipment to its product line and then, after opening a second factory, bottled-gas cooking stoves under the brandname Fagor. By the end of 1958, Ulgor had 149 worker-co-operators and its success had inspired several other co-ops to set up in Mondragon and elsewhere in the region.

At this point Fr. Arizmendiarieta suggested that his ex-students should establish a bank so as to be able to tap local savings to finance the co-ops' expansion. "Our initial reaction

was one of annoyance and we literally sent him packing" one of Ulgor's founders said later. "We told him 'yesterday we were craftsmen, foremen and engineers. Today we are learning how to be managers and executives. Tomorrow you want us to become bankers. That is impossible'". Undaunted, the priest drew up the bank's constitution and bylaws, concocted the minutes of a fictitious founding meeting, forged two of his disciples' signatures and - lo and behold - the Lankide Aurrezkia bank was formed as a co-op to be run by representatives of its own staff and the workforces of its member co-ops. It was recognised by the Spanish government in July 1959 and opened two branches, one in Mondragon, the other in Elorrio in the neighbouring province of Vizcaya, just so that it could continue to operate should one province decide to revoke its licence and close it down. Persuaded of its potential importance, four of Ulgor's founders joined its board, one as president, another as chief executive. The fifth had already left Ulgor to found his own company.

In many ways Lankide Aurrezkia was, and is, the equivalent of an industrial holding company because each co-op signed a Contract of Association with it which set out in some detail how the co-op would operate. For example, wages paid by member co-ops were tied to those in the bank by a clause which stipulated that their minimum rate of pay be no more than 10% above or below the minimum paid by the bank to its staff and that their top rate would not be more than three times their minimum. Each co-op also had to supply financial data to the bank every month plus full accounts and details of future plans every year and was subject to a detailed assessment and audit by the bank every four years.

Naturally, all a member co-op's funds had to be banked with the Lankide Aurrezkia and the Contract of Association also set the maximum and minimum amount that anyone joining that co-op would have to provide as his or her share of its capital: this could not be less than 80% or more than 120% of the bank's own joining fee which was, at the time, equivalent to roughly a year's wages for anyone on its minimum rate. (New entrants could borrow the required sum interest free and have deductions made from their wages until the amount was repaid; as the minimum Mondragon wage was usually above the equivalent in ordinary commercial companies in the region, this entailed little hardship. However, a firm principle of the co-ops was always that worker-co-operators must risk their own capital).

Finally, the Contract of Association set out how the profits of the co-ops were to be divided. Ten per cent had to go to charity, as required by Spanish law, a minimum of 20% had to be retained by the co-op itself and the balance was to be allocated to the co-op's workers and lodged in individual accounts to be withdrawn in full only when the worker retired: anyone leaving prematurely or being sacked could lose up to 30%. In the first year this system operated, 1960, workers were allowed to take 10% of their co-op's profit in cash and this fraction rose to 30%, equivalent to more than a month's wages, between 1962 and 1965. However, since then, these cash payments have been abolished and the only top-up to their wages that the workers now receive is interest up to a

maximum rate of 6% on whatever funds they have invested with their co-op. As David Morris says in the best recent report on the way Mondragon operates: "This disbursement formula means that the enterprise effectively controls 90% of its net surplus. The individual capital account might be considered a long term, low interest loan to an enterprise that might not have the collateral to be able to borrow money outside."<sup>13</sup>

What did the co-ops get in return for signing such a restrictive contract with the bank? Two massive advantages. One was and is low-cost funds. According to Morris, about half the capital of the member co-ops is made up of loans from Lankide Aurrezkia for which they pay interest at rates which are sometimes as much as 5% lower than the prevailing market rate. This is possible because the top salaries in the bank were, at least until recently, very significantly lower than those paid by banks outside and because the bank has automatic access to the surpluses of its member co-ops. The bank is effectively the only source of capital open to the co-ops apart from the savings of their own members.

The other advantage the co-ops get from their association is first-rate advice and guidance on whatever they wish to do from the bank's consultancy division. This covers marketing, exporting, production techniques, industrial buildings, personnel, legal affairs, audit and management control systems. In extreme circumstances, however, the bank does not limit itself to merely giving advice and in the depressed period in Spain in the early 1980s, when the Mondragon co-ops collectively made a loss for three years running, it intervened extensively, sacking managers, changing product lines, trimming wage levels, merging member co-ops or transferring workers between them and, when it was finally satisfied, making concessionary loans. In 1983 alone, 34 out of the 100 co-ops underwent this sort of treatment which was highly successful: indeed in its entire history, only three Mondragon co-ops have ever closed, two because of special circumstances. Conventional firms in the Basque region have not survived so well and between 1975 and 1983 the area lost a fifth of its manufacturing jobs.

The new bank was successful in attracting private savings from the start and by 1966 was operating 21,653 accounts. "Libreta o maleta" was Fr. Arizmendiarieta's slogan, bankbook or suitcase, save or emigrate. By 1987, the bank had 600,000 depositors, \$3bn. in assets and was the 13th largest savings bank in Spain. In its early days, however, most of its funds came from the co-ops, particularly Ulgor, and 75% of its loans went back to other co-ops in the group to fund their expansion. Indeed, the bank's rules initially prevented it lending money except to its member co-ops.

The way in which the bank operates can best be shown by describing the role it plays in the establishment of a new co-op. If a group approaches the bank with an idea of its own or one selected from a list of possible projects the bank maintains, it will pay the salary of the member of the group most likely to become factory manager to work on a feasibility study in conjunction with members of the bank staff, including a 'godfather' whose responsibility it is to see the project through its early days. If the study shows the project

is promising, the bank will loan 60% of the required capital. Half of the rest is covered by a low-cost (3%) long-term (10 years) loan from the Spanish government and the final 20% has to be found by the members of the group themselves. 70% of any losses the project makes in its first two years are converted into an additional loan by the bank to be repaid over the following seven years. The godfather gets a seat on the new co-op's board.

The big advantage of this approach for the bank is that each feasibility study it carries out builds up its expertise and provides information and ideas which may be useful for future feasibility studies. The advantage for the new co-operators is that they get help and guidance from a team which has handled previous start-ups and ought, therefore, to be able to save them making costly mistakes. Indeed, one estimate suggests that the value of the services provided by the bank to a new co-op is roughly equivalent to the amount of capital it lends. This way of doing things is certainly a far cry from that in Britain and Ireland where most small business start-ups are attempted by people who have never opened or run their own business before. In fact, some people with start-up experience are actively discriminated against because, if their start-up failed, they are likely to be refused a loan on the grounds of their 'bad track record'. It is therefore scarcely surprising that, according to Barclays Bank figures, only 40% of start-ups are still trading after their first three years.

As the Mondragon bank is actively involved in the management of its co-ops and shares risks with the people working in them and since the interest rates it charges co-ops have, at least in the past, been largely independent of those on the Madrid money market and capable of adjustment to a co-op's circumstances, they are better seen as a combination of payment for services rendered and a share in the co-ops' profits, rather than pure interest as normally understood. Interest rates represent a financial performance target for a Mondragon co-op not an absolute obligation to pay as there is no question of the bank forcing it into liquidation if it is unable to do so. Instead, the ailing co-op is likely to be re-organised and, if necessary, re-financed, thus sharing the financial pain between the bank and the worker-co-operators. The Mondragon system is therefore reasonably - if messily - close to the risk-sharing, profit-sharing, no-interest ideal, although as the concept of interest is still omnipresent, a Muslim might not be happy with it. The individual co-ops are, effectively, interest-free too as the rate of interest they pay to their worker-members for the use of the capital they provide on joining and contribute from their share of the profits is flexible and depends on the co-op's performance in any given year: it is thus more akin to a dividend. The only guarantee that the co-op gives to its members about their capital is that its value will be increased each year in line with the cost of living and, as this is a group of people giving a guarantee to themselves, they will have to find the resources themselves, perhaps by taking lower wages, if their co-op makes inadequate profits for the promise to be kept.



## PANEL: GOING DUTCH KEEPS INSURANCE PAYMENTS LOCAL

Henk Van Arkel estimates commercial insurers would charge him £500 a year for storm and fire damage cover on this old-style thatched farmhouse. Instead he pays £130 to a local co-operative insurance society.

The payment of household and motor insurance premiums causes a serious and growing loss of national currency to almost every British and Irish community, but there is a way by which this can be reduced. Henk van Arkel, the director of the Dutch non-governmental organisation Aktie Strohalm, lives in Soest, a village within commuting distance of Utrecht, in a thatched house he bought from a farmer who had built himself a spanking new residence across the road. Insuring a thatched building can be as difficult and expensive in the Netherlands as anywhere else, so van Arkel joined the local insurance co-operative, Statuten Onderlinge Branverzekering UA, which had insured the house for the farmer. "There are five hundred of these co-ops throughout Holland", he explains. "The way they work is that they collect premiums from their members based on the value of their properties and cover a proportion of the risk themselves. That keeps quite a lot of money in the community. The rest of the risk they cover by sharing it with other local co-ops by re-insuring with a mutual insurance company a lot of them own, SOBH."



*Henk Van Arkel estimates commercial insurers would charge him £500 a year for storm and fire damage cover on this old-style thatched farmhouse. Instead he pays £130 to a local co-operative insurance society.*

Van Arkel thinks that the system works well because with only 425 members in the Soest co-op, one's fellow-members would soon know if anyone made a false or inflated claim, and be very unhappy about it. "It would be reflected immediately in the rates of premium we all had to pay," he says. "The cost of insurance through these co-ops varies quite a lot because of their claims experience but it is normally cheaper than with the commercial companies".

The co-op, which was founded by farmers in 1885, naturally has to maintain reserves to cover it if claims are greater than its share of the annual premium income. "We've got

400,000 guilders (£175,000) set aside," he says. "I don't know how big reserves the co-op kept before 1944. It didn't take out re-insurance until then."

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An equally valuable feature of the Mondragon system is that as its investors are also its workers and members of the local community, they are not solely interested in the financial return they get on their capital but the whole range of social and economic benefits a project generates. This has enabled it to avoid the acute conflict between the interests of investors and those of the community we discussed in an earlier chapter. As a result, Lankide Aurrezkia represents the best working model for a community enterprise loan fund we've got despite the fact that the Mondragon experiment is now heading the wrong way, as we will see in the final chapter.

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## PANEL: BACK TO BASICS WITH BUILDING SOCIETIES

One method of recycling an area's savings which has almost disappeared in the past hundred years is the local building society. In 1900, there were 2,286 building societies in the UK, almost all collecting savings and lending them out again within a limited area and thus reducing the amount of interest payments and capital which leaked out of the districts in which they operated. By the end of 1995, however, there were only 79 building societies left and the biggest seven of these had not only become so national (and in some cases international) in their operations but also, with the major banks, so dominant in the mortgage market, that only 14% of all house loans were still being provided by the 69 remaining building societies with strong local or regional roots. Many of these are expected to disappear too. Replying to a 1994 survey by a Union Bank of Switzerland analyst, John Wrigglesworth, 70% of building society chief executives said they thought most of the smaller local societies would have been absorbed by national ones by the end of the century.

Such a change is not inevitable as if enough well-motivated people in places which still have a local building society opened accounts they would be able to prevent its amalgamation no matter how big a bribe a national society offered members to secure their vote to take it over. But this would merely prevent further losses. Reversing the trend is likely to be much more difficult since the EU now requires new societies to have a capitalisation of a million Ecu (the British government gratuitously made more onerous by rounding it up to £1m), thus making it almost impossible for people in places which have lost their society to start a replacement. The days in which a building society could be dreamed up over drinks after an Ecology Party conference and launched by persuading ten people to invest £500 each - as the Ecology Building Society (EBS) was in 1981 - have gone. "That road seems closed" Bob Lowman, the present general manager of the EBS told me. "The government seems to be moving the goalposts all the time. Societies can do many more things these days but they are much more tightly regulated"

Two approaches might enable communities to get around this EU restriction, however. The simplest would be for an existing building society to accept an invitation from a

community to set up a branch in their area on the basis that it would not move capital in or out of that area and restrict itself to granting mortgages using the area's savings. Such a policy could become an attractive marketing strategy for an existing society once a reasonable number of people begin to accept the desirability of investing their savings in their own neighbourhood.



*A self-build housing project at Gledhow Bank, Leeds, financed by the Ecology Building Society. The rear of the building will be covered with a turf roof.*

The other approach goes back to the origins of building societies themselves. The first society for which records exist was founded in the Golden Cross Inn in Birmingham in 1775 and was soon followed by others in the growing industrial towns of northern and middle England. These were all terminating societies, set up by working-class men who drank in the same pub (for the first 50 years of the movement, every single society was linked with a public house)<sup>15</sup> to enable them all to be housed. A self-build housing project at Gledhow Bank, Leeds, financed by the Ecology Building Society. The rear of the building will be covered with a turf roof. Each of the 25 or 30 members undertook to pay a fixed monthly subscription and whenever the group had collected an agreed amount - a share, enough to build a house - it would be allocated to a member either by drawing lots or by competitive bidding, the successful bid going back into the kitty towards the next share. These societies actually built houses themselves and wound themselves up when everyone was housed - the last one being dissolved as recently as 1980. Originally, a member's share was interest-free but as the pace at which shares became available was rather slow, some terminating societies began to borrow from non-

members so that they could allocate shares faster. This enabled everyone in the society to be housed more quickly but meant that members had to pay extra subscriptions to meet the interest payable to non-members. This was worth doing, however, because members would otherwise have continued paying rent for much longer.

The main problem with the terminating societies was that a new member could not join after one had started unless he could afford to put in a lump sum equal to the amount the others had already subscribed. In 1845, the first permanent (i.e. non-terminating) building society was set up to overcome this drawback. It also allowed people not actually wanting to be housed to put their money on deposit and reclaim it whenever they wished, thus making their savings available to members needing housing rather more flexibly than with a terminating society.

In other words, the permanent societies were (and are) deposit-takers and deposit-taking is the activity that a society formed today would not be allowed to perform unless

it had access to £1m. of capital. "But if a new society was proposing to take its members' savings as shares rather than deposits, I would be able to register it under the Industrial and Provident Societies Act" says Malcolm Lynch. This would mean that anyone saving with the new society would only be able to get their money out after another member had been found to purchase their shares and not, as with the existing societies, on demand.

This would be a drawback but, even so, it means the way is open to launch a local building society which preserved the non-interest feature of the original terminating societies by operating on the following lines: each year, groups with twenty members each would be enrolled by the society, each member committing him or herself to saving by monthly instalments a twentieth of the cost of an average house in their area each year. If local house prices increased, the sum they would be obliged to save annually would be put up accordingly. At the end of its first year, each group would have collected enough for its first member to buy a house and a celebratory dinner could be held at which the house-sum was allocated by auction, the successful bidder being the person who offered to leave the highest proportion of the money in the pot to go towards the house-share for the next auction. The rules of the society would stipulate that successful bidders doubled their monthly payments once they were in their new house, thus giving the other members the benefit of the money he or she would save by no longer paying rent.

Ten or eleven months later, the price of a second house would become available and could be allocated in the same way. As time passed, the intervals between house-sums becoming available would become shorter and shorter and, depending on how big bids members were prepared to make in the house-sum auctions so they could buy their house sooner rather than later, the whole group could be housed within twelve to fifteen years. Subscriptions would then stop and the group would have become owner-occupiers at very much less cost than if they had had to take out conventional mortgages. The disadvantage of the system - that some members would have to wait over ten years for a house-sum - would be minimised if each group included a high proportion of people young enough not to want to move into a home of their own for several years..

The building society would not terminate when the first group or groups had been housed but continue to look after successive years' groups of savers. For example, if a member who had not yet bought a house fell on hard times and was unable to save for a period, the society could arrange for him or her to leave their original group and join a later one instead. If a member needed to withdraw from the system because his or her circumstances had changed, the society would advertise their shares and transfer them to whoever offered the best price to take their place in the group to which they had belonged. As the years passed, membership of a group would become increasingly valuable because the number of months between each house-sum coming up for auction would get shorter and shorter. Indeed, if the society's rules allowed, members would be able to recover most of their money by buying a house-sum at one of their group's regular auctions and then paying off all the double subscriptions due until the group was scheduled to be wound up from the house-sum itself. Similarly, once a member had purchased a house, they would be able to recover their money by selling

their house and paying their outstanding subscriptions in a lump sum from the proceeds of the sale. In short, techniques could be devised to ensure that a reasonable degree of flexibility was possible even though the society could not act as a deposit-taker.

Even ignoring the interest savings, it would be well worth the effort to launch such a society. Although it is national in its operations - at the end of 1995 it made its first loan in Northern Ireland - and has other objectives, such as allowing its members to restore derelict properties and thus save the materials and energy embodied in them - in one case at least the EBS has given an indication of the good a local society would be able to do. Some years ago the society made a number of loans to enable families to buy miners' cottages in a village in East Cumbria which other societies would not touch. As a result, the school and the post office which had been under threat were able to stay open and the whole community was re-invigorated.

Another approach to the provision of zero-interest housing loans has been developed by the Dutch non-governmental organisation *Aktie Strohalm* (Last Straw Action) for use in the South African townships although it could well be applicable elsewhere. The townships suffer, amongst other things, from a shortage of houses and an almost non-existent local economy. This means that most residents with jobs have to travel to work outside the township and unemployment within it is high.

Several international agencies have offered funds to build houses and *Aktie Strohalm* was asked to suggest a way in which their construction could be used to develop the townships' internal economies because if the aid funds are spent on hiring a contractor in the conventional way, he will almost certainly be from outside the township and bring all the necessary materials and labour in. The township would get new houses but nothing more. Part of *Aktie Strohalm's* suggestion, which involves using a township credit union to run the project, reads as follows. As this book went to press, however, it seemed unlikely that the idea would be taken up.

#### HOW AN INTEREST-FREE LOCAL CURRENCY MORTGAGE SYSTEM MIGHT WORK

The first step is that the credit union announces, with great fanfare, that it will make interest-free mortgages available to families wishing to purchase houses, shops or workshops on a development it is about to start. The announcement will add that the only people eligible for the new mortgages will be those who, by the time the first building units are finished: 1) have saved 10% (say) of the purchase price in special township tokens (TTs) which will be issued to pay the building contractor for his work. 2) are already resident in the township, and, 3) have a regular Rand savings account in credit with the credit union.

Contractors tendering for the first few units will be asked to price their bid in TTs and will be told that they can exchange the TTs at the credit union for 95% of their face value in Rands, if they so wish. However, if the publicity is successful, families wishing to qualify for an interest-free mortgage will be happy to buy the TTs from the builder at or above their face value in Rands. The public demand for them should also ensure that shops and building material suppliers will be prepared to accept them at face value in payment for goods and building materials and construction workers will consequently be able to

accept them as wages. The credit union should be prepared to open special TT savings accounts, which would pay no interest but give depositors preference when the next batch of mortgages came to be issued. The credit union would never sell TTs for Rands, and would only accept repayment of the special mortgages in TTs, thus ensuring that there is a continuing demand for them.

If the exchange rate of TTs for Rands rises above parity, this is a signal that the credit union can get a contractor to begin another batch of houses and thus put more TTs into circulation. On the other hand, if significant amounts of TTs are being brought in for redemption in Rands, this would be a sign that too many TTs had been issued and further building contracts should be deferred. The aim of the programme should be to build as many houses as possible every year while at the same time keeping the TT's value at par with the Rand. The credit union should, of course, reserve the right to alter the amount of the deposit as a percentage of the purchase price of the properties it finances in order to control the system. It should also be prepared to finance old as well as new properties, at least when the system has become established, so distortions in the local property market are avoided.

Analytically, by holding the new money, township residents are making interest-free loans to the families which get the mortgages. Their motive for doing so would be that they - or members of their families - wanted to get interest-free loans themselves at some time in the future. Obviously, interest-free loans can be repaid more quickly than conventional mortgages.

The credit union would incur costs operating the system but in the early stages at least, each TT would be backed by a Rand provided by a donor agency and the credit union could earn interest on the backing funds by lending them out to its members or by depositing them in a commercial bank. Once the TT is well accepted, fractional backing will become possible and the donors' money will be able to finance houses worth several times its Rand amount. There is no reason why the TT should not reach the stage that it circulates in the township as commonly as the Rand, the only difference being that it would not be acceptable outside and would not attract interest if placed in a savings account.

There is no risk to the credit union in operating the scheme. The worst that can happen is that all the TTs are presented for conversion into Rands immediately they are paid out to the builder. In this case, the houses would be built and paid for just as if the experiment had never been tried.

Ecology Building Society, 18, Station Road, Cross Hills, Keighley, West Yorkshire BD20 5BR. Tel. +44 0845 6745566, fax 01535 635166, e-mail [info@ecology.co.uk](mailto:info@ecology.co.uk) .

Aktie Strohalm, Oudegracht 42, 3511 AR Utrecht, the Netherlands, tel. 31-30-2314314, fax 31-30-2343986, e-mail [info@strohalm.nl](mailto:info@strohalm.nl)

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How, then, should a community should set out to build its own local banking system? Its first step is obviously the establishment of a credit union if it has not got one already. The *Short Circuit* by Richard Douthwaite: Chapter Four

primary purpose of this would be to enable people to borrow to purchase consumer goods or to undertake house repairs without causing a leakage of interest payments and service charges to the outside world.. The only decision the community needs to make before setting it up is whether it should charge interest or whether it should be part of JAK and interest-free. My personal view is that since most of the things - the freezers and greenhouses for example - members would buy with their loans would provide benefits year after year, it is entirely right that they should pay for these benefits in addition to repaying the loan. As far as I am concerned, interest payments are acceptable so long as they stay in the community: it is only with business investments that problems arise.

Once a credit union is running well and the directors feel they can take a further step without jeopardising it, they could start a Dutch-style insurance club or open a building society to provide a home for the deposits which, at present, they cannot lend to members and have to send out of the community for investment elsewhere. But although Irish credit unions and JAK banks can rent out workspace to community businesses as in Tallow, they should not attempt to provide business loans. This is because the banking model is totally inappropriate for financing local enterprises since it basically involves telling the borrower: "You know your business - or, at least, you ought to be pretending to if you want a loan. In any case, it is not our job to give advice. If you want that, hire a consultant. We daren't risk even suggesting what you should do because if things turn out badly, we could be held legally responsible or the loan agreement could be cancelled by a court. What we want from you just that we get our interest and capital payments on time, however high the markets push up rates and whatever happens to the world or the national economy. And just remember, if you fall behind badly, we'll seize the collateral you've signed over today and take up the personal guarantees." The fact is, you just can't talk to a neighbour like that. If he or she is going to use a community's savings in a business, the community has to be as sure as it can be that the enterprise is well thought out and has the necessary human resources behind it. Nor can it simply limit its involvement to a pre-investment investigation. Even TILT, operating on its tiny scale, finds that it has to help and advise its clients regularly if it is to protect its capital despite having investigated their projects thoroughly before it became involved. And, if things go really wrong, it needs the legal right to step in to help sort out the mess, Mondragon-style. Appointing a receiver is not the answer since their primary role is to recover the debt owed to the institution which appoints them rather than re-organising the operation to keep it open. In any case, they are usually sent in far too late.

Every community therefore needs an enterprise investment fund which has a team of people of sufficient calibre to investigate and then help manage the businesses in which it puts its money, and assembling such a team should be given higher priority than finding the capital to invest. These funds should see themselves as holding companies which share the management, the profits and the losses with the groups and individuals with whom they work rather than lending organisations which stand back from a project's problems, insist on a fixed rate of interest and threaten to call in their collateral and wind up the operation unless it is paid. Where they should differ from conventional holding

companies, however, is in looking for social dividend as well as a financial return. Only when there are many such bodies about which people feel confident enough to invest their pension funds will we be able to feel happy that more self-reliant local economies are genuinely beginning to re-emerge.

Further Information (last updated September 2002):

## CREDIT UNIONS

In Ireland the national organisation is the Irish League of Credit Unions, 33-41 Lower Mount Street, Dublin 12, tel. +353 (0)1 6146700. For those in Northern Ireland who would prefer not to be affiliated with any organisation with headquarters in the Republic, there is the Ulster Federation of Credit Unions, 56, Sandy Row, Belfast BT12, tel +44 028902 236301.

The British equivalent is the Association of British Credit Unions Ltd., (ABCUL), Unit 307, Westminster Business Square, 339, Kennington Lane, London, SE11 5QY. Tel. 0171 582 2626. ABCUL has a series of downloadable PDF files containing detailed information about setting up a credit union at this link.

## OTHER ADDRESSES:

Triodos Bank, Brunel House, 11, The Promenade, Clifton, Bristol BS8 3NN. Tel. +44 0117 973 9339, fax +44 0117 973 9303, e-mail [mail@triodos.co.uk](mailto:mail@triodos.co.uk),

Aston Reinvestment Trust is the trading name of ART SHARE (Social Help Association for Reinvesting in Enterprise) Ltd. The address for ART SHARE Ltd. is The Rectory, 3 Tower Street, Birmingham B193UY. Tel +44 0121 3592444, fax +44 0121 3592333, e-mail [reinvest@gn.apc.org](mailto:reinvest@gn.apc.org)

ICOF Ltd., 227c City Road, London EC1V 1JT. Tel +44 020 7251 6181, fax +44 020 7336 7407, e-mail [icof@icof.co.uk](mailto:icof@icof.co.uk).

Fazlun Khalid, Islamic Foundation for Ecology and Environmental Sciences, 93 Court Road, Balsall Heath, Birmingham, B12 9LQ . Tel/fax 0181 904 3898.

UK Social Investment Forum, Holywell Centre, 1 Phipp Street, London EC2A 4PS. Tel. +44 020 7749 4880, fax +44 020 7749 4881, e-mail [info@uksif.org](mailto:info@uksif.org)



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## Notes

1 27 Jul 1994.

2 Letter, 3 February 1994.

3 'Pandora's Marketplace', 13 February 1993.

4 A. Culloty, *Nora Herlihy: Irish Credit Union Pioneer* (Irish League of Credit Unions: Dublin 1990), p. 77

5 Quoted in *the Guardian*, 26 June 1993.

6 Telephone conversation.

7 Included in *Islam and Ecology*, Fazlun Khalid and Joanne O'Brien (eds) (Cassell: London 1992).

8 Published in 1985 by the Islamic Foundation, 223 London Road, Leicester.

9 In a supplement 'Islam and the West', 6 August 1994. *The Economist* also published a long essay on usury in its Christmas issue in December 1993.

10 International Islamic Publishers, K-20 D, Saket, New Delhi 17.

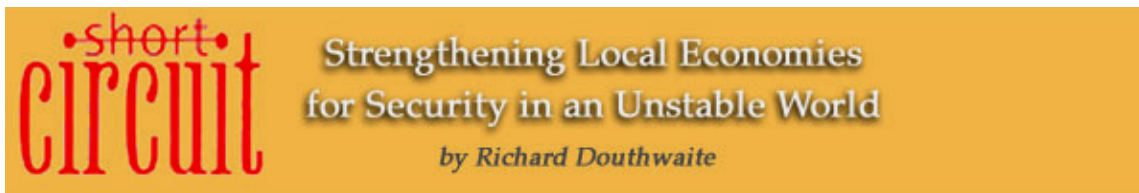
11 Vadillo can be contacted at the headquarters of the Murabitun movement in Scotland: Achnagairn House, Inverness IV5 7PD; tel +44 1463 831523.

12 Jesús Larranaga (one of his students), quoted by David Morris, *The Mondragon System: Co-operation at Work* (Institute for Local Self-Reliance: Washington 1992), p.11

13 Morris, *The Mondragon System*. Material on Mondragon has also been taken from *Morris's The Mondragon Co-operative Corporation* (Institute for Local Self-Reliance: Washington 1992) and *We build the Road as we Travel* by Roy Morrison (New Society Publishers: Philadelphia 1991).

14 This is almost exactly the interest-free method of borrowing proposed by Shaikh Mahmud Ahmad in *Towards interest-Free Banking*. His suggestion is that if someone wishes to borrow, say, £10,000 for a year, they would commit themselves to lending £1000 to the bank for ten years.

15 See Martin Boddy, *The Building Societies* (Macmillan: London 1986). Other historical material is taken from Donald McKillop and Charles Ferguson, *Building Societies: Structure, Performance and Change* (Graham & Trotman: London 1993).



## Chapter Five

### ENERGY MAKES THE WORLD GO ROUND

*The provision of an adequate supply of energy from local resources is fundamental to greater self-reliance. Fortunately, most communities are able to develop such supplies.*

Just as the human body adapts itself to the regular intake of hard drugs, its systems coming to depend on them to such an extent that the user goes through a period of acute distress if they are suddenly withdrawn, so the use of hard, fossil, energy alters the economic metabolism and is so highly addictive that in a crisis situation, a user-community or nation will be prepared to export almost any proportion of its annual output to buy its regular fix. Even in normal conditions, a community in an industrialised country can devote a fifth of its external income to buying energy <sup>1</sup>, an expense which not only constitutes a serious drain on its resources but locks the community into the unpredictable gyrations of the world trading system. Consequently, any community which wishes to be more self-reliant has, at some stage, to turn its attention to the slow process of reducing the extent to which it depends on whatever fuels, renewable or fossil, it brings in from elsewhere.

Stable, sustainable communities cannot be based on imported energy for three reasons. One is that fossil fuel use on any substantial scale - and most energy imports are of the fossil variety - is not itself sustainable because it cannot continue for thousands of years without consuming its resource base and producing harmful environmental side-effects. The best estimates are that if world fossil energy consumption continues at its present rate - an optimistic assumption since human numbers might well double over the next fifty years and the average amount of fuel used by each person is likely to increase - the world's currently-proven reserves of oil will be exhausted at present rates of extraction in 43 years, those of gas in 65 and of coal in 232 <sup>2</sup>. Although it is reasonable to expect that large additional sources of fossil energy will be discovered, extraction rates may well go up and, in any case, it is impossible to believe that adequate supplies of these three fuels will be available for millennia, which is what any reasonable definition of sustainability requires. Moreover, even if fossil fuel supplies were limitless, the capacity of land plants and the oceans to absorb the carbon dioxide released when they are burned is not and fuel consumption cannot continue at anything like its present level without bringing about highly-damaging and potentially catastrophic changes in the world's climatic regime.

The second reason to aim for community energy self-reliance is that imported fuel supplies are unreliable. British North Sea oil output has been declining since 1987 and at present rates of extraction proven reserves will be exhausted by 2004 and imports will

have to start again in 1996 or 1997. As a result, life in the UK will come to depend again on stability in the Middle East which holds over 65% of the world's known oil reserves. Since 1950 there have been five serious disruptions to oil supplies from the area: the Suez Crisis (1956), the Yom Kippur War (1973), the Iranian revolution (1979), the Iran/Iraq war (1980-8) and the Iraqi invasion of Kuwait and the subsequent Gulf War (1990-1). Gas supplies are even less secure than those of oil although the enthusiasm British and Irish electricity producers have recently shown for switching to it to generate electricity might lead one to think otherwise. British gas reserves are expected to be exhausted by 2002 if 1992 extraction rates are maintained.

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### **2003 update on oil and natural gas depletion**

According to the White Paper on Energy published by the British Government in February 2003, the UK will become a net importer of gas by 2006 and of oil by 2010. As a result of the decline in home production, by 2020, the country will be dependent on imports for 75% of its primary energy needs.

These imports will have to be secured in circumstances of increasing scarcity. Many independent petroleum geologists have gone on record as saying that world oil production will peak at around 2009 and then decline steadily. World gas production will peak around 2040. Thus, as the graph from the August 2002 edition of the Newsletter published by the Association for the Study of Peak Oil (ASPO) shows, by around 2015, the total amount of energy available from oil and gas will begin to decline. This will radically change the nature of the world economy by making transport and the use of fertilisers much more expensive. It will therefore create very favourable circumstances for the re-emergence of local economies apart from one thing - the energy required to provide the equipment and infrastructure these will require will be expensive and in limited supply. Places which become more energy self-reliant over the next decade will therefore enjoy a great advantage.

Further information on oil and gas depletion can be obtained from [www.asponews.org](http://www.asponews.org).

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Consequently, if the government forecast that UK gas consumption will double over the next 25 years and 60% of electricity will be generated from gas by 2020 proves correct, massive imports will be required. These imports will be piped in from Russia and the Middle East as transporting liquefied gas by sea is very expensive. As a result, Britain will be exposed to the risk of its supplies being cut by civil unrest, local military conflicts and international disputes in any of the territories along the pipelines' route.

Ireland's position is no better. Kinsale Head, its only known major gas field<sup>3</sup> (and, indeed, its only significant domestic fossil fuel source apart from peat) will be exhausted around the year 2000 and the country is already importing gas from Britain through an undersea pipeline opened in 1995. "We would envisage imported gas supplying almost all our requirements" a Bord Gáis spokesperson told me.

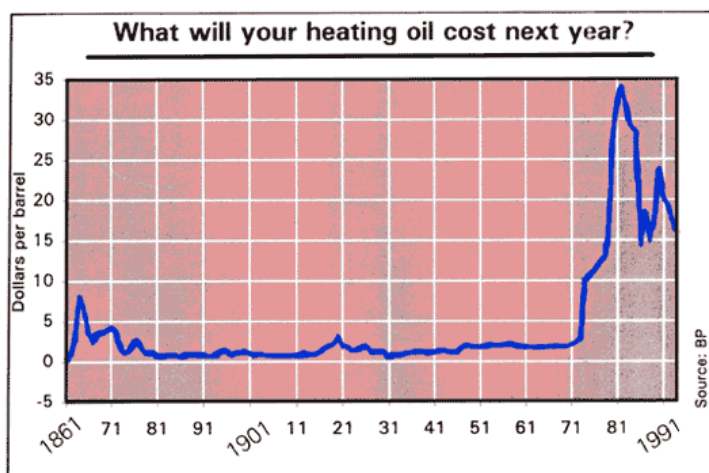
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## 2003 update on the Kinsale gas field

March 2003: An agreement to cease production from the main Kinsale Head gas field was reached in August 2000 although a small amount of gas is still produced by two much smaller fields in the same area, Southwest Kinsale and Ballycotton. The resulting shortfall in the country's gas supplies has been made up by building a second pipeline to bring in gas from the British grid. Another gas field, the Corrib, has been discovered off the Mayo coast but plans to bring the gas ashore in North Mayo have been delayed by local objections to the site of the terminal and the pollution it is feared it will cause.

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The third reason for phasing out fuel imports is that energy prices are very erratic. The graph below shows just how much oil prices have changed since the fuel started being put into widespread use in the last century. Swings since the early 1970s have been particularly wide and violent. Each substantial change affected the prices of all other fuels, even those which cannot easily be moved from place to place, because of the ease with which oil can often be substituted for them. In New England, for example, the price and supply of local firewood is entirely determined by the price of imported oil because people switch to burning oil to warm their houses in winter whenever it is cheaper.



*Graph 5.1 Although fluctuations in oil prices since the early 1970s have been wild compared with their previous stability, they have been even more extreme for people outside the US who, because oil is priced in dollars, have had exchange-rate instabilities to cope with too. Communities depending on fuel from the outside are therefore running great but unquantifiable risks.*

Whenever energy prices change significantly, the whole structure of price relationships in the economy changes as well. This is because each product requires a different amount of energy for its production and distribution and so needs to be raised or lowered in price by a different amount. Energy price movements therefore make some goods and services relatively cheaper and people begin to use more of them in place of the more costly ones, thus affecting the entire make-up of an economy's output, encouraging expansion in some areas and contraction in others. This can be wasteful if machinery is scrapped and factories demolished before the end of their useful lives. New energy price levels make

new ways of manufacture commercially viable as well. For example, if the price of fuel falls, transport costs drop in comparison with other prices because the sector is relatively more energy-intensive. This makes it profitable to produce on a larger scale and to use additional energy in a transport fleet distributing the extra output over a wider area. Small, local manufacturers are driven out of business, and since it would be a long time before they re-emerged if energy prices rose again, we can see why higher levels of energy use are so addictive: a one-way ratchet effect is in action and it is very hard for an economy to revert to using less energy whatever prices do.

No stable, sustainable community can therefore exist without a secure, sustainable supply of energy at a stable price and the only way that both security and price stability can be guaranteed is by having energy sources within community boundaries and under community control. But is energy self-sufficiency technically feasible for most communities? And, if so, does it carry a heavy cost penalty? After all, if it did, this would seem to impede a community's efforts to produce a much wider range of goods and services for itself at prices which matched those from outside, the strategy we considered in Chapter Two. In fact, however, moderately higher local energy prices are unlikely to create a competitiveness problem because the production techniques used in a community economy will generally require much less energy than those in the industrial system. Moreover, electricity, the price of which will receive most attention in this chapter, is too high quality power to be used except in special circumstances for anything but very limited range of applications including lighting, microwave ovens, electronic equipment, motors, and methods of applying heat to limited areas such as welding. If local electricity is priced a few pence more per unit more than that from outside it will make little difference to a community's overall cost levels provided its use is confined to these applications. Certainly, no-one supplying electricity to a distribution grid or taking it from one should ever use it for warming rooms or heating water, applications which a US energy expert, Amory Lovins, once referred to as equivalent to using a chainsaw to cut butter because of the waste of energy involved in generating electricity from fossil fuels.

In any case, what do we mean by the cost of an activity within a community? One aspect is obviously the amount of external currency which has to be earned to enable it to continue. When electricity is supplied through the national grid, apart from the wages of electricity workers living in the area plus any rents, dividends and supply invoices the power companies pay locally, 100% of whatever the consumers are charged leaves the area. With locally-generated power from a renewable source, however, the only inescapable national currency cost once the equipment has been installed is that of any spares too complex to be made within the community area. Interest payments - a substantial part of the cost of power from most renewable sources - rents and wages could and should all go to local people. The external currency cost of locally-generated renewable power can therefore be very small. This does not necessarily mean that the price of power to the consumer would be low because local costs might be heavy but there is no need for these costs to be paid in national currency. A wind-farm, for example, could adopt Robert Swann's idea and issue its own currency notes expressed in kilowatt hours to pay its staff and to cover the interest due to locals who had invested their national-currency savings to enable it to be built. If it then accepted these notes back in

payment for its power, everyone in the community would be happy to use them as money, either settling their own electricity bills with them or spending them in shops.

The only real way in which locally-produced energy can cost more than that from outside is in terms of what economists refer to as its opportunity cost, the cash value of the opportunities the community has to give up to bring its own power sources about. For example, it could be that the capital used to build a windfarm would have brought a higher financial return if it had been invested in something else, or that the farmers growing willow to burn would have earned more cultivating another crop. Communities will rarely find these circumstances arise, however, because energy projects should be given as good a return on capital as any other scheme to serve the community's needs and because more profitable uses for a community's labour can only arise when it has achieved full employment. Even if community members compare returns with those on investment opportunities in the outside economy, local energy projects should be an attractive place for their savings because of the low rate of interest mainstream banks, pension funds and building societies generally pay the small saver. Moreover, they will be aware that funds placed with institutions operating in the international economy are at risk if that economy breaks down whereas an investment in a local power supply is about as safe as they can get. Nevertheless, if circumstances do arise in which there are substantial opportunity costs, people are going to have to decide what their priorities are: is a higher income stream from the external economy in the short term preferable to long-term community energy security?

A factor which should make the decision to invest in local energy sources rather easier is that world fossil energy prices are almost certain to rise sharply soon despite the fact that in early 1994 the price of oil was down to only \$14 a barrel, much the same level in real terms as it was between 1930 and 1970. In fact, this low price was part of the problem - oil markets have been so weak for most of the period since 1982 because of the depressed state of the world economy that very little capital has been invested in developing new fields and there is now almost no capacity to accommodate even a modest increase in demand. When they come, these higher fossil energy prices will raise the amount of national currency communities need to find to develop renewable power supplies. It therefore makes sense to develop those types of renewable energy now where the technologies are already so well-established that their capital costs cannot be expected to fall much further. Windpower, small-scale hydro and some types of biomass (plant-matter derived) energy fall into this category. With other energy sources - photovoltaics, for example - huge capital cost reductions are likely within the next decade and it is better to delay their exploitation.

The table in the next panel shows estimates of the national currency and local currency costs of the various methods of energy provision which communities might have open to them calculated on the assumption that they are to be carried out on a community scale as opposed to a household or industrial one.

## PANEL: BALANCING EXTERNAL COSTS AGAINST LOCAL ONES

A good approach when assessing the options a community has in the renewable energy area options is to break down the estimates for the capital and running costs of the various possibilities into their national-currency and local-currency components. At first sight, this might seem to make life more complicated because there are now four figures, not two, by which projects have to be compared. These figures are national currency capital cost, local currency capital cost, national currency running cost and local currency running cost. How can any one of these figures be related to the other three? Obviously, a project with a low national currency capital cost is better than one with a higher one, the other costs being equal. But other things are never equal and for each pair of projects with the same national currency capital cost, the levels of local currency capital cost, local currency running cost and national currency running cost will differ. How can comparisons be made?

The first step is to decide how much more national currency it is worth spending on capital equipment now in order to have lower national currency running costs in the future. The conventional answer is to say that if a community's investors can earn more by putting the extra money in an outside project than would be shaved from a power plant's national currency running costs by spending it on better equipment, that is where the capital should be invested provided the level of risk is the same. Consequently, someone who thinks that the world economy is likely to break down sufficiently seriously to cut off their income from external investments will favour putting extra capital in the local power plant while a neighbour who holds a more optimistic view about the mainstream's future will not. We, of course, have reservations about this approach since we think that, as a community, we should be looking for a much wider range of benefits than the financial return. Even so, there is no hard and fast way to relate national currency capital and recurrent costs in community projects in an uncertain world. Some sort of trade-off has to be done and the outcome will vary according to the circumstances of the time and the community's attitude to the risk of external disruption.

The relationship between local currency capital cost and local currency recurrent cost is simpler. Both are mainly made up of wage bills, one to build the plant, the other to keep it running. If there are unemployed people in the community, it makes sense to use as many hours of their labour as are necessary and available for local currency wages now to reduce the plant's need for labour in the future. This is because labour cannot be stored and, if people who would have liked to have worked do nothing, a potential community resource has been lost. It should always be possible to find alternative work in the future to replace whatever is saved by the extra done now.

In other words, a project should hire as much labour as it can usefully use from people who are prepared to accept payment in local currency notes. The cost of this labour should not be converted into national currency for project comparison purposes except to the extent that the people involved would have been doing something to earn or save themselves national currency if the power plant project had not come along. No exchange rate should be used if no exchange would have been possible. The same applies to comparisons between local currency running costs and national currency ones: local running costs should only be expressed in national currency terms to the extent that they represent resources which, if used in some other way, could have been sold on an equally secure basis for national currency.

What all this means in practice is that projects should be compared initially on the basis of the total national currency investment required per unit of installed capacity and also the national currency cost per unit of output generated. This enables those with the worst national currency figures to be eliminated and a final choice made on the basis of their local recurrent costs between projects for which enough local-currency-paid labour is available for their construction.

Local and external costs of renewable energy sources

### 1. CAPITAL COSTS PER KILOWATT OF INSTALLED ENERGY

	EXTERNAL	LOCAL	TOTAL
HYDRO	£550 for turbine & generator	£450-£950 depending on extent of site work	£1000-£1500
WIND	£825 for turbine tower	£175 for access road and provision of foundations	£1000
WOOD-CHIP CHP	£80 for diesel engine & generator, assuming 100kW capacity	£120 for gasifier & installation; £100 for planting coppice	£300

In addition to electricity, this system would also supply the equivalent of 1.5 kW as hot water for every kW produced. For the hot water to be used, however, more capital might be needed for a distribution system. However, no allowance has been made for this as distribution costs such as the cost of connecting to the grid and grid usage charges are not included in the wind and hydro figures.

METHANE FROM BIOMASS CHP	£330 for pumps, gas engine, generator	£500 for tanks, sitework	£830
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This system would also supply the equivalent of 1.8 kW for every kW of electricity produced. It has the additional advantage of dealing with problem wastes and produces valuable by-products. Both CHP systems have the advantage over wind and hydro that they can be operated at a variable output whenever there is a demand.

## 2. RUNNING COSTS PER KILOWATT-HOUR PRODUCED

	EXTERNAL	LOCAL	NOTES
HYDRO	0.4p (spares)	0.6p (maintenance)	operating 2600h/year
WIND	0.55p (spares & insurance)	0.8p (maintenance)	operating 2600h/year
WOOD-CHIP CHP	0.5p (diesel fuel), 0.5p (spares)	2.7p (wood-chips cost). 1.0p (maintenance)	operating 1500h/year. More coppice would need to be planted for longer.
METHANE FROM BIOMASS CHP	0.5p (spares)	3-6p (depending on transport distances)	Based on a plant operating 350 days/year; 60 tonnes biomass/day

Source: Wind & Hydro, Irish Energy Centre; Wood-chip CHP, Rural Generation Ltd; Biomass CHP, Mary O'Donnell

One column of the table shows that even if all costs are treated as being in national currency, electricity from some forms of renewable energy is already entirely competitive with that from gas, oil and coal. This is despite the fact that fossil fuels are heavily subsidised since the full cost of the environmental damage caused by their combustion is



not reflected in the prices power stations pay. Anyone who is surprised by these figures was in good company until recently because it was only in 1994 that the Irish Department of Energy learned how low renewable energy costs actually were. The Department had asked companies to submit bids saying how big government grants they would need to induce them to sign contracts to supply electricity from non-fossil sources if they were guaranteed an inflation-proofed average price of 4p per unit power for 15 years. £15m. was set aside to cover the grants but in the event, not a penny was paid because more than enough proposals were submitted which were commercially viable without them. The Department, which had obviously been under a seriously false impression about the true cost of renewable power, signed contracts for 50% more capacity than it had intended.

No settlement anywhere is without some source of renewable energy it can develop - indeed, very few will find they have only one. Most will have several, like Hatherleigh, a small market town near Okehampton in Devon whose energy prospects were assessed in 1993 by two firms of consultants, Pell Frischman Water and Terence O'Rourke plc under contract to the British Government and the EU<sup>4</sup>. The consultants found that the town would have no problem meeting all its electricity and heating needs entirely from renewable sources but only if several were exploited and consumers were prepared to pay somewhat higher prices for their power. The area's most abundant renewable energy resource was the solar radiation falling on its walls and roofs. Very little of this was exploitable, however, because the installation of solar heating panels or arrays of photovoltaic cells on buildings 'would conflict with the historic character of the town' most of which is a conservation area. The fact that many buildings were listed for preservation and could not be changed also meant that there was little scope for using passive solar energy since this involves designing and constructing buildings so that the sun's rays are used in ways which reduce the need for artificial heating and lighting.

The next most abundant resource - wind energy - was also judged to be of limited potential because the area's average windspeed was below 6.5 metres/sec, the minimum currently considered commercially viable if high rates of interest have to be paid to outside investors. If local savings had been available to finance the project, however, this cut-off point could have been reduced because the interest rates would have been able to have been lower while remaining attractive to local people and the payments would have stayed in the area. "The ability of renewable energy projects to facilitate the local retention of wealth is a potentially significant indirect benefit and worthy of further research in its own right" the report says in its recommendations. Local involvement would also perhaps overcome a second problem with wind energy in Hatherleigh - a wind farm's visual impact. The town's windiest site is the Moor, a prominent ridge to its east, and objections would undoubtedly be raised if an outside company ever proposed to erect windmills there. The reaction might be different if a community company suggested the same thing but, with no sign of one emerging, the consultants decided that the only contribution the wind could make to Hatherleigh's needs was to drive small individual turbines on isolated farms to supply their electricity.

Hydropower was considered to offer poor prospects too: "Without significant civil works, only schemes at existing mills and weirs dating from the 19th century and earlier would

offer sufficient potential energy" and even on those sites - there were six with a total capacity of 230kW - projects were "unlikely to be cost effective".

So where was Hatherleigh to get its power? From agricultural sources - the coppicing of willow trees specially grown on farms, plus the production of gas from farm slurries, sewage sludge and abattoir waste. The report states that the conversion of a tenth of the 7,944 hectares of farmland to coppice would produce almost 8,400 tonnes of dry wood chip each year, more than enough to fire a power station producing 9.6 GWh/year, the total electricity requirement of the town, as well as a considerable amount of hot water which could be used to warm workshops, greenhouses, homes and offices. The consultants estimated that if the energy in the hot water was distributed free rather than being sold, the cost of the electricity would be around 10p per unit. Electricity from the biogas digester would be more expensive - upwards of 16p per unit - unless a use could be found for the hot water and an allowance made for the fact that the digester disposed of what would otherwise be problem wastes.

The consultants stress that Hatherleigh is not unusual in the abundance of its renewable energy resources. "A not-dissimilar volume and variety of accessible resources would be found in the hinterland of many rural settlements. This conclusion applies not only to West Devon and other parts of the West Country but to other areas of the European Union such as Brittany and much of the Irish Republic". Two other findings of the Hatherleigh study would apply elsewhere too. One is that the scope for the large scale, centralised, commercial development of renewables is limited and that the available resources can best be developed on a community basis. "Options for community engagement in the development, ownership and operation of a renewable energy project in Hatherleigh should be kept under review" the report says. "With the two most promising renewable energy resources both being farm-based, the farming community and its associated business and co-operative structures are likely to form a focus for specific projects in the locality. The other finding was that renewable energy can provide an important means of rural renewal. "A higher aspiration for renewable energy production would ..... make a significant contribution to the European Union's efforts to promote sustainable development, diversify rural economies and improve the effectiveness of the Common Agricultural Policy."

At a national level, there is no doubt that the long-term potential of renewable energy is considerable. "In principle, renewables could supply all the energy needs even of advanced industrial nations assuming that there is a serious commitment to energy conservation" Dave Elliott of the Network for Alternative Technology and Technology Assessment (NATTA) at the Open University wrote in his 1993 report 'Towards a Renewable Energy Strategy for the UK'.<sup>5</sup> "The [British] Government's Renewable Energy Advisory Group recently suggested that in theory, renewables could supply 1,100TWh/annum, two or three times the UK's electricity requirements, at a cost of less than 10p/kWh. To that must be added a heat contribution. A more ambitious scenario produced by Cambridge University's Department of Applied Economics suggests that we might expect up to 50% total energy contribution by 2040 in the UK while a scenario

produced by the Stockholm [Environment] Institute for Greenpeace has renewables supplying 62% of West Europe's energy by 2030, rising to 100% by 2100"

Let us look, then, in more detail, at the forms of renewable energy most likely to be suitable for community-scale exploitation in the British Isles.

## 1. WATER POWER

During the past twenty years, electricity from small hydropower plants - that is, under 5MW - has become entirely price competitive with that from fossil-fuelled power stations even by conventional accounting standards. And, while several community-scale projects have recently been carried out in Britain and Ireland, there is considerable scope for many more. Over 20,000 sites in the British Isles had waterwheels at some time in the past, and very few of these are still used.

The Republic of Ireland, for example, once had 1,800 watermills. In the early 1980s when experts searched 2,000 six-inch maps covering the entire country looking for their locations and for other places where waterpower might be developed they found that only 85 sites of 3,500 they considered worthy of visiting were still used for power. A report published by the Department of Energy in 1985 gives the experts' assessments of the head, flow rate and power potential of the operational sites together with the best 483 unexploited ones.<sup>6</sup> According to this study, a total of 38MW of capacity could be developed, which Fiacc O'Brolchain, the secretary of the Irish Hydro Power Association<sup>7</sup>, thinks is about right. "I've been going around the country for some time saying that we've about 10MW of hydro power installed and there's another 30MW we could develop unless the price of electricity went much higher and made a lot more sites feasible" he says. "However, there are a lot of sites which are in the report which ought to have been left out and a lot more which ought to be in." My own experience bears this out: there were five water mills within a mile of my house, not one of which is mentioned in the report. Three of these stood together in a small valley to which water was channelled from a nearby river and, after a preliminary survey, a friend who is a waterpower engineer estimated that if the canal was re-opened and a modern high-pressure turbine was installed it could generate 250kw.

The key determinants of a good waterpower site are the volume of water, the proportion of the year it flows and the distance through which it falls: 9.8kW is generated by a cubic metre of water falling down a metre in a second, provided the turbine or waterwheel through which it passes is 100% efficient. In practice, of course, this is never the case. Also, although low head turbines such as the Kaplan in which the moving water pushes round propellers can convert as much of the water's energy into useful power as those for higher heads such as the Pelton wheel in which a high-pressure jet of water is directed into cups mounted on a spinning wheel, they are more expensive because they need to be bigger in order to cope with a much larger volume of water to give the same amount of power. They also need to be built to closer tolerances and shaped more carefully to suit the speed of the water passing through because if turbulence develops it wastes a lot of the water's energy. Obviously, one cannot decide whether to fit a high-head or low-head

turbine - that depends on the site. The traditional overshot mill wheel is surprisingly efficient - it can extract 70% of the water's power - but is unsuited to generating electricity because of the slow rate at which it turns. One could, of course, fit a gearbox to speed the rotation up but this would waste energy itself, and if one tried to speed up the wheel, the water would be thrown out of the buckets by centripetal force, also leading to inefficiency.

Electricity was not generated from waterpower until the 1880s and there was almost no technological development of small-scale systems between 1930 and the oil crisis in 1973 because the market for turbine sets in industrialised countries collapsed when people who might have ordered them found it cheaper and easier to get their power from the national power grid when that reached them. Many manufacturers went out of business or began making pumps. Even before 1930, small-scale hydropower was at a serious price disadvantage in relation to larger waterpower schemes because of the cost of the control system required for a reliable AC output. According to *Micro-Hydro Power* <sup>8</sup>, the best book I know for anyone considering a small-scale system, in the old days the controls for a 15-20kW water turbine often cost more than all the rest of the installation and, on a 10kW system, might have consumed 10% of the output. DC control systems were cheaper and simpler but meant that the power was unsuitable for the most readily-available electrical appliances.

It is only within the past twenty years that this control problem has been overcome and electronic systems are now available at a reasonable cost for even the smallest system. Progress has also been made on standardising small, low head turbines - and most sites offer only a limited head - and presenting them in such a way that the construction work needed to house the turbine and channel the water is greatly simplified. For example, a Dublin firm of engineers has developed the Polyturbine which is suitable for sites with heads from 1.5 to five metres <sup>9</sup>. The beauty of the Polyturbine, which was thought up by a Swede, Evald Holmen, is that the contractor building the turbine house and the water channels running to and from it needs to erect very little shuttering before casting them in mass concrete. Instead, the correct shapes are made up in glassfibre at the factory, placed in position on site and concrete is poured around them to hold, strengthen and stiffen them up. This cuts sitework costs considerably. Moreover, because the channels and turbine chamber have the smooth side of the glassfibre reinforced resin lining them rather than concrete, the water moves through with very little friction.

The Polyturbine - like similar systems from several other makers - is modular: only one size of turbine is made. This is capable of handling between one and 3 cubic metres of water a second and if the amount of water available is greater than that, an identical turbine is installed alongside the first rather than a bigger model. Adjustments to suit the differing heads from site to site are made by adding extra sections to the water intake channel. As a result, the standard turbine and generator for a site with a 1.5 metre head costs £30,000 and produces 25kW from a 2.5 cubic metre flow while that for a 5 metre head site costs only £8,000 more and delivers 114kW, a much better bargain.

A small water power site will probably cost about £1,000 per kilowatt to develop although that cost and the number of units of electricity a kilowatt of generating capacity converts to each year vary widely from site to site because of differences in the amounts of site-work required and the length of time when there is enough water for power production. Traditional water-mills had ponds if there were times of year when there was inadequate water for the mill to operate: a millpond enabled the energy of 24 hours' water flow to be used in seven or eight.

Seamus Langan, a pub owner who installed two Polyturbines near the site of an old mill at Ballinrobe in Ireland in 1995 will not say how much his installation cost, although he does say that the site work went more easily than he had expected - he had feared that the contractors would run into hard limestone rock. Even if he was prepared to quote the cost, however, it would be of little relevance to other people because the major investment which made his project possible was the digging of a mill stream as a relief project 150 years ago around the time of the Great Famine. Nevertheless, his story is interesting.

Langan was a small farmer until he bought the Valkenburg bar in Ballinrobe in the early 1970s. He still had some fields, one of which ran between the Robe river and the mill-canal, but was not alive to the possibilities of water power until the late 1970s when a Liverpoolian engineer working for a company which made an ill-fated attempt to develop an Irish-made range of wind-turbines pointed out the potential of the site.

Langan could do nothing to develop the site immediately because he did not own the water rights which were still attached to the mill which stood derelict and rotting in the next field, one wall torn down years before by workmen taking machinery out. Eventually, though, the mill came on the market and Langan bought it up. He then had to seek permission from four governmental bodies to go ahead with plans prepared for him by Colm Walsh of University College, Galway, where the first experimental Polyturbine had been installed.

The first body he approached was the regional fisheries board, which helped him to adapt his plans so that fish in the Robe would not be affected by the project. "At some times of year, the level of oxygen in the river is low and so fish will be attracted to the disturbance created as the water re-enters the river after passing through the turbines. If they went in too far, they would be killed, so we have had to fit screens to stop them," Langan's son, Barry, told me when he showed me round. "We only have to have them on in when the water is low and take them away at other times because they interfere with the flow of water from the turbine, creating a backpressure and reducing its efficiency." The other stipulation the Fisheries Board made was that fish screens be fitted to the turbine intake as well and that some water from the canal be allowed to flow through to the old mill so that any fish in it could get away.

The next set of negotiations was with the Office of Public Works, the body responsible for river drainage throughout the Irish Republic, so that it could satisfy itself that the proposed works would not cause flooding. No problems there, but the final step before

Langan could apply to Mayo County Council for planning approval was rather protracted - he had to persuade the Electricity Supply Board to take his power at a time when its huge coal-burning power station at Moneypoint had just come on stream and the state-owned company had considerable excess capacity. "The ESB fellows were very nice but they just weren't interested," Langan says. Eventually, however, agreement came through, and, with documentary evidence of the approval of the three bodies, he was granted planning permission without further trouble in 1987. "It might be more difficult to get planning permission now," Langan says. "The anglers around here have become much more militant and are worried about the condition of the rivers."

No siteworks were carried out until 1992, and only then to stop the five-year planning permission lapsing. Langan explains the delay by saying he was negotiating for an EC 'Thermie' grant towards the cost of the project but was unsuccessful. "I think the money went on that windfarm in North Mayo instead," he says. He then delayed actually fitting the turbines which have a total capacity of 100kw for almost three years because he hoped to be able to get a grant under a scheme outlined by the Minister for Energy in October 1993 under which the ESB would buy 75MW of electricity from renewable sources. In the event, neither he nor anyone else got a grant but he was awarded a 15-year supply contract and the turbines were commissioned early in 1996.

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#### PANEL: TOWN INSTALLS TURBINE TO CUT OLD PEOPLE'S POWER BILL

If Bandon in Co. Cork is any guide, communities are prepared to back the right sort of renewable energy project with cash and enthusiasm. In May 1992, four friends bought a bankrupt earthmoving contractor's yard near the centre of the town at a liquidator's auction with a bid of £65,000. "We had no money and had get round to the bank quickly to arrange a loan so that we could put the 10% deposit down" says one of the four, Paddy O'Sullivan, an electrical contractor. His three colleagues were Paddy Connolly, a builder, John Perrott, a civil engineer and P.J. McLoughlin, a pharmacist. "The yard covered about 1.5 acres and was surrounded by ruined buildings but we weren't interested in that," O'Sullivan says. "What we wanted was the seven-foot weir on the Bandon river beside the yard which went with the property. Our idea was to put in a turbine to generate electricity to heat and light St. Michael's, an old people's home run by a local voluntary group, and save them £14,000 a year."

After paying the deposit, they had to raise not just the balance of the purchase price but also the cost of building and installing the turbine, a 48-inch Francis producing 70kW built by Paddy Belton of Richfort, Co. Longford, which eventually worked out at £120,000. "We asked people for interest-free loans for five years and the first big one we got was for £10,000 from the Bandon Co-op [which makes butter with milk from 500 farms besides supplying feed and fertiliser]. This gave us the leverage to go to the two main banks in the town and ask them to match it, which they did," O'Sullivan says. Getting an interest-free loan from a bank is some achievement. Then a community group which had collected £26,000 to build a hall lent that too, on condition it could get it back whenever they needed it. Another community group put up £10,000 on the same basis.

The four men also began hunting for grants. "We chased every grant there is and had a 95% failure rate," O'Sullivan comments. Eventually, though, they received £60,000, including £30,000 from the local Leader, an EU rural development programme, and £10,000 from the Ireland-America fund. In addition to the grants, they received £20,000 in donations from local people.

While the fund-raising was going on, the team felt they needed to learn more about water power. Their original idea was to restore an old turbine beside the weir which had been out of use for many years. "We did a tremendous amount of consultation. We questioned every turbine owner in the country to pick up what we needed to know" O'Sullivan says. Eventually, they decided that restoration would not enable them to get the maximum power from the site and that they would need to install a new turbine to do so. John Perrott designed the installation and Paddy Connolly built it. "We had to cut seven feet down into the rock to deepen the tailrace as otherwise the flow of water out of the turbine would have been impeded and we would have lost power," Connolly says. "The most helpful person we met was Paddy Belton. His quality and prices were the best, too. He's a marvellous man."

Belton's business, the Belton Engineering Works, is mainly a welding shop producing anything from structural steelwork to spiral staircases. He builds turbines because he is fascinated by their geometry: "I've always been interested in alternative energy. I was looking through my diaries the other day and found I'd been thinking about turbines back in the 1940s." However, the first turbine he actually built was completed in the mid-1970s. "It went into an old mill and it wasn't that successful, but, still, it was good enough so I could carry on." These days, his target is to produce a turbine in the 2-10kW range for under £1,000. "The problem with turbines is that they are too expensive and electricity is too cheap. The idea is that we'll supply plans and the people will do 50% of the work for themselves. I hope to be taking out a patent later this year" he told me in 1995. "You can save a lot of money if the electricity is just used for heating because the electronic load controller is expensive."

By December 1992, the Bandon installation was complete and representatives of the Electricity Supply Board arrived to test it before authorising its connection to the grid. Belton was there, uneasy among the men in suits. "We had problems getting the sluice gate down fully and there was a lot of turbulence. I had guaranteed that the turbine would deliver at least 60kW but the ESB man taking the readings kept saying the output was only twelve. Was it the turbulence? Had I miscalculated? Was the shape of the housing terribly wrong? But then the ESB man realised that he was only measuring one phase of the three phase supply and the actual output was 62kW. You can bet I was relieved."

Apart from the sticking sluice gate, the only teething problem the installation experienced was that the turbine intake kept getting blocked by water weeds or fertiliser bags being carried downstream. However, John Perrott designed an automatic scraper to clear the intake screen every fifteen minutes and since that was fitted the installation has worked perfectly, producing about 400,000kWh a year. None of this had gone to the old people's home by mid-1995. Instead, it was being sold to the ESB and the income was being set aside to enable the £70,000 of interest-free loans to be repaid. However, Paddy O'Sullivan was optimistic that the contractor's yard would soon be sold, this time without the weir and water rights, for £100,000. As soon as that happened, he said, the home would get its power directly and only if there was a surplus would it go to the grid.

"The whole thing was Paddy O'Sullivan's idea," Paddy Connolly says. "He had been talking to the previous owners before they went into liquidation." Did you widen the membership of your group when your bid for the site proved successful? I asked. "We did not," he replied. "We'd worked together a lot before and we'd learnt from being involved in other voluntary organisations that involving more people means more suggestions but not a lot more help in carrying them out."

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In Britain, anyone going through a similar process has to obtain the consent of the National Rivers Authority (NRA) unless they are simply putting a turbine into the river itself beside an existing weir. "If you plan to take water from a river, pass it through your turbine and then put it back, you need an abstraction licence" says Commander George Chapman, secretary of the National Association of Water Power Users<sup>10</sup>. "If you want to put in a new weir, you need an impounding licence." Planning permission is also required. "The NRA is a statutory consultee so they are automatically told about your planning application by the planning authority. That means that it's a good idea to speak to the NRA first."

Installations under 20kW are not worth linking to the mains because of the high cost of the protection equipment, Chapman says. "The best thing is to find a way of using that power directly and saving yourself the 8p a unit, or whatever it would have cost you to buy." In any case, the price paid by the local regional electricity company (REC) would probably be derisory - about 2.5p/ a unit, he adds. At present, projects have to be big enough to warrant the trouble and expense of submitting them for Non Fossil Fuel Obligation (NFFO) contracts to get a better price. In 1995, contracts under NFFO, the scheme used by the British Government to support the development of nuclear and renewable energy, paid 4.85p per unit for water power, inflation-proofed for the next 15 years.

According to Chapman, this might be about to change because the RECs are increasingly prepared to recognise that power supplied on a limb of a network is more valuable to them than if it was supplied at its heart by Powergen or National Power through the national grid because they can save the capital cost of strengthening their distribution lines to that area and have lower line losses. Also, RECs are under increasing pressure from OFFER, the regulatory body for the electricity industry, to pay independent producers no less than they pay their own in-house electricity generation companies. And, after April 1998, the RECs will lose their monopoly over power distribution and producers will be able to sell their output to anyone they like. "A water- or wind-power producer will be able to find a customer somewhere in a REC's area and just pay the REC to use its wires to get it there. OFFER will control the amount that the RECs can charge for that service. The power the producer supplies will just be metered into the network and then out again at the customer's premises" Chapman says. "This arrangement already exists for people with loads of over 100kW." So, a British wind- or water-power co-op should soon be able to supply its members with electricity through the existing



distribution network and, apart from the REC's distribution fee, bill them in its own energy-based currency.

Things might be about to change in Ireland, too. When this book went to press in late 1995, no-one planning a renewable energy project could be sure whether they would be able to sell the electricity it produced to, or through, the national distribution system. This silly situation came about because the rules for the 1994 competition to supply renewable energy mentioned earlier laid down that 'no other alternative energy projects for the supply of electricity to the ESB will be accepted during the [1994-96] period.' The Irish hydro power and wind energy associations both criticised this rule when it was announced on the basis that it would lead to a once-off spurt of projects rather than a continuous flow and thus make it much more difficult to get Irish investors involved and an Irish wind turbine manufacturing industry to established. In submissions to the minister in early 1995, both associations asked that a fair price be set for power from renewable sources so that developers could negotiate to sell their output and connect to the grid at any time. They also expressed concern about the charges being made for connection to the grid and wanted special assistance for smaller projects. "Not very much has changed since we made our submission" Sheila Leyden, the secretary of the Irish Wind Energy Association <sup>11</sup>, told me at the end of 1995. "We want some sort of rolling programme so that projects can be developed on a continuous basis, with special terms for the smaller ones."

Small-scale hydro is the supreme renewable energy source - correctly carried out, an installation should do no harm to the environment and run for fifty years before it needs a major overhaul. The only problem with it is that, like Hatherleigh, most communities have insufficient sites to meet more than a tiny fraction of their electricity requirements.

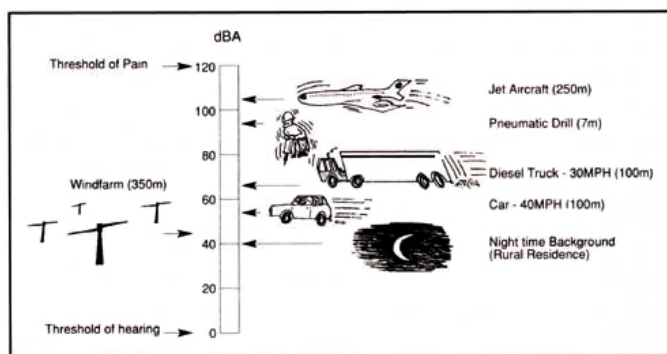
## 2. WIND POWER

The crucial decision to be taken when considering wind energy is the site. A good one must have a high average windspeed because since the power available to the turbine to convert to electricity depends on the cube of the wind velocity. This means that just the difference between an average windspeed of 5 metres per second and 6m/s will affect output by almost 27%. However, a convenient connection to the electricity network is also needed and when Ireland's first windfarm was being planned in 1991, a coastal site with higher windspeeds was dropped in favour of an inland one close to the peat-fired power station at Bellacorrick in Co. Mayo because this minimised the cost of linking up to the national grid. A single 300MW turbine such as might be purchased by a group of neighbours needs access to an 10KV<sub>a</sub> line - the type used to supply a large farm or a small factory - if they plan to use the grid to distribute the power amongst themselves and to sell off any surplus that occurs.

Good sites should also have reasonable road access, so that heavy equipment can be brought in to put the tower and turbine up. A smooth topography is also desirable since a cliff or a two-storey building can cause unpredictable turbulence. Some of the turbines at Bellacorrick are close to a young pine plantation which reduces output whenever the

wind is from that direction. As the power losses will obviously get worse as the trees grow, I can see them being purchased and felled.

Sites should also be places where the erection of a turbine will not upset the planning authorities or the neighbours: bad siting and bad equipment have already given windfarms a bad name in Britain. The £30m. farm with 103 Japanese-made turbines at Llandinam in Powys is particularly unfortunate, causing a noise which has been likened to 'moans from a mass crucifixion.' In fact, there should be no appreciable noise from a wind turbine provided that its blades and gearbox are properly designed. All modern Danish turbines produce less than 45dB(A) at 350 metres, which is little more than the level of background noise at night in the country as the chart shows (BWEA Factsheet No 15) and special versions are available whenever anyone wants to erect a turbine particularly close to a house. In moderate winds one can stand right under any of the 21 turbines at Bellacorrick and talk in a normal voice while in higher winds, the noise of the wind itself drowns the turbines out.



Common sound levels. (source: British Wind Energy Association)

The only serious environmental drawback with wind turbines is their visual impact. The Danish countryside is dotted with single turbines, or groups of two or three, often erected by members of a wind guild living close by. These I regard as

acceptable additions to the rural scene: the only distracting feature is the movement of their blades which, in an otherwise stationary landscape, tend to draw the eye. The windfarm at Bellacorrick is acceptable too, adding interest to a bleak landscape in the way yachts add interest to a coastal bay. A low-tension powerline which has nothing to do with the farm but runs parallel to the road leading to Bellacorrick as it crosses a long stretch of bog is very much more unsightly.

But Llandinam, which supplies enough power for 21,000 houses, and the Altamont Pass in California are quite another matter. Here there is no question of the wind turbines becoming part of the landscape - they are the landscape, simply because there are so many of them. And, because hundreds of blades are constantly rising into the sky, the angle of each forever changing its relationship to that of its neighbour, the overall effect is visually bewildering as the eye hunts vainly for repeating patterns. In his opening address to the British Wind Energy Association conference in 1993, Michael Jefferson, director of the British Energy Association, referred to Llandinam as 'involving unacceptable visual intrusion' although he rated the acceptability of ten other windfarms as 'high'. "There are many potential sites for windfarms .... which are not of great landscape value" he added.

In 1992, Bridget Gubbins, a leading opponent of proposals to site nuclear power stations on the Northumberland coast, went to Denmark and Holland on a Churchill Scholarship to see what ordinary people living near windturbines thought about them <sup>12</sup>. Naturally, opinions were mixed. Some people thought the turbines beautiful, others hated them. One family living only 300 metres from a windfarm at Vederso in West Jutland thought the 27 turbines were too close to their house although a group of three machines would have been acceptable. They also complained of a whistling noise from the turbines on quiet evenings when there was a low wind. "We like to watch birds and have seen no harm done to them" the husband said. "We watch the migrating geese and they avoid the turbines easily. I think people who say otherwise are misinformed."

The nineteen-year-old daughter of another family also living 300 metres from the nearest turbine of a 24-turbine windfarm in Lolland thought the windmills nice to look at. "Noise is not a problem" she said. "When the wind is from the north they can be quite loud but then we are usually in the house with the windows closed. When there's a low wind, we can hear them in the garden but it's not loud."

Gubbins found she liked the turbines, whether in large windfarms, singly or in small clusters, more than she had expected. "The newest models were attractive to look at and have already become a normal part of the countryside in both countries. The Danish sugar bags available in all the supermarkets show a typical country scene where sugar beet is grown, of a Danish single storey farmhouse, trees and adjoining wind turbine. Wind turbines are certainly more attractive than pylons, or wooden electricity poles and wires which are found everywhere and which our eyes to some extent no longer perceive. The noise from the turbines I found negligible."

So, if a group of friends thinks that sites near where they live might have wind-power possibilities, how should they proceed? "I spend a lot of my time talking people out of projects" says Brian Hurley <sup>13</sup>, a wind energy consultant who lectures at Bolton Street College of Technology in Dublin. "Sites generally aren't as windy as you think. If the group want to save money by doing some preliminary work themselves, they should look up their sites on wind maps of their area. In Ireland, Larry Staudt and I prepared a report for the Department of Energy in March 1988 called 'Identification of Wind Energy-Rich Sites Best Suited for Windfarm Development' which the Department will usually give away to serious enquirers and which covers lowland locations near the coast but not those over 1,000ft elsewhere in the country. [In Britain, ETSU, the government's Energy Technology Support Unit based at Harwell, has done a wind survey of the whole country down to 1 km squares, and supplies the results on maps or computer discs for specific areas.]

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## PANEL: A BLUFFER'S GUIDE TO WIND TURBINES

Turbines start producing power at a windspeed called the cut-in windspeed, typically about 4 metres/sec. As windspeed increases, power output increases until the maximum power output is reached, typically at a windspeed of about 12-13 metres/sec. The turbine design or its control system ensures that if the windspeed increases above this level, power output will not increase. This is to protect turbine components from forces larger than those for which they are designed - the additional energy available in higher windspeeds over a year would not justify the additional costs of using a larger gearbox, generator, bearings etc.

At a higher windspeed, sometimes called the cut-out or furling windspeed and typically about 25 metres/sec., the control system stops the turbine. The maximum windspeed the turbine is designed to stand is called the survival windspeed. The levels of these windspeeds vary with turbine design and the sites for which the turbine is designed.

Turbines may be stopped on an instruction from the operator, when the windspeed exceeds the cut-out windspeed, or if the control system detects a fault. Most turbines have a mechanical brake mounted on one of the shafts in the nacelle [the generator housing]. In addition, many turbines have aerodynamic brakes in which the blade tips, or the entire blades, twist to a position perpendicular to the plane of rotation, so slowing the turbines down.

Turbines may be upwind or downwind of the tower. Advantages of downwind design are that the blades can cone or flex in the wind without any danger of hitting the tower. This reduces the stresses in the blades and allows cheaper, lighter blades and a lighter structure to be used. Disadvantages are that a sudden drop in windspeed each time a blade passes behind the tower may cause vibration and fatigue of the blade and structure, and may also cause noise.

The capacity factor of a wind turbine is the ratio of average power output to rated power output for a given period. Turbines on windier sites tend to give higher capacity factors. Typical capacity factors are in the region of 20-30%.

from an article by Ciaran King in *In the Wind*, the newsletter of the Irish Wind Energy Association.



*Most of Europe's wind-energy potential is in Britain and Ireland. The lighter shades on the map indicate wind speeds over 6m/s and the darker shades wind speeds over 7 m/s.*

"Otherwise, if anyone else has carried out wind studies nearby, the group should try to get access to their results. The Meteorological Office will also have some data. The EC has prepared a wind atlas of Europe but this is very broad-brush <sup>14</sup>. I give free telephone consultations and if people visit me with detailed maps, I can usually give them broad guidance on whether it seems worthwhile taking the project further. If they want a consultant to undertake a site visit, they obviously have to cover his expenses."

Hurley suggests having three or four possible sites to show a visiting consultant. "I normally rate them according to four factors" he says. "The most important is windspeed, of course. Next is access and the general suitability of the land. The third factor is the site's proximity to the electricity grid. And the fourth is the likelihood of getting planning permission."

When the best potential site has been chosen, the next step is to erect a instrument tower exactly where the turbine will stand to record the wind's speed and direction for the next year at the height its blade hub will be. "The test of a serious project is whether wind measurements have been carried out" Hurley says. "It's just like exploring for oil and gas: you choose the best site from maps and data other people have assembled but you don't know if there's anything worthwhile there until you've drilled a test hole, or, with wind energy, erected a test tower. You can get quite a surprise."

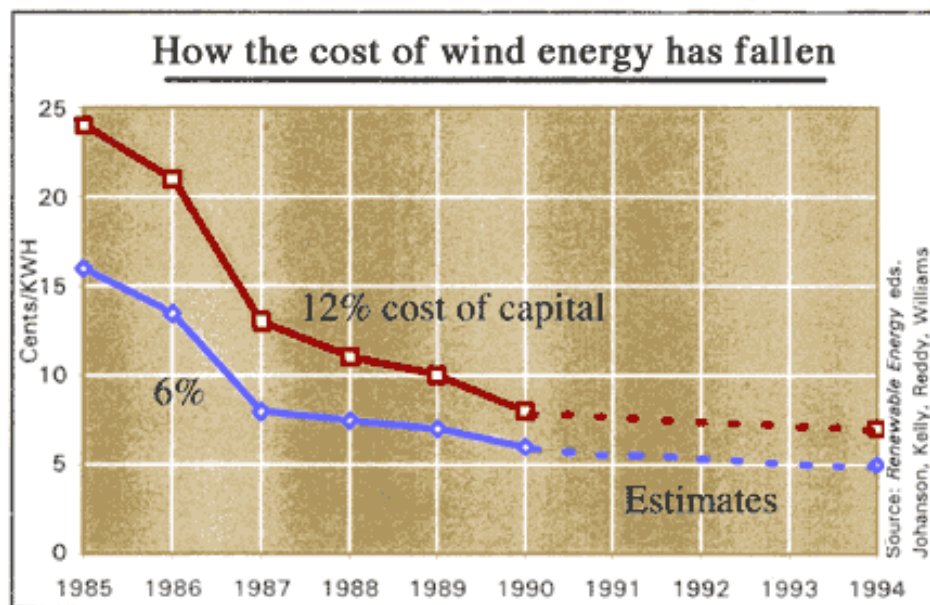
Serious money has to be spent on these tests. Even if the group can erect the tower itself, it will still cost £1-£2,000 and the instruments a further £1,500. "I never suggest that people get second-hand instruments" Hurley says. "That's for psychological reasons - it would be like saying their project wasn't worth researching properly - and because new equipment comes with a twelve-month guarantee. If you had to have a service engineer make a field trip to repair second-hand instruments, it might cost you as much as you'd saved. You'd also have lost readings while the equipment was down. In any case, a group should check the equipment regularly to make sure it is working and can expect to pay £30 a month to their consultant for the evaluation of the data it obtains."

Even a full year's wind data is no guarantee that the site will be successful. "Every farmer or fisherman knows how much a particular year's weather can vary from the long-term average" Hurley says. "But at least with a turbine you know that your readings are within 15-20% of the mean. You can't say that about a year's water level readings in a river as a guide when planning water power." So the next step, which would normally be carried out by the consultant, is to compare the wind data with that obtained for the same period at the nearest meteorological station to get some idea of how the particular year's readings compare with those of an average year. The site readings, plus the met. figures, could then be sent to the manufacturers of the turbine the group is considering so that they can quote for a suitable machine.

"A year's set of wind measurements is likely to cost anywhere between £3,000 and £8,000, depending on how much you can recover if you sell the tower and equipment afterwards" Hurley says. "As the smallest wind turbine I would recommend that anyone

to install these days would be a 200kW model costing about £200,000, you've got to look on the cost of the measurements in the same way that you would regard survey fees if you were buying a house for a similar sum."

Once a suitable site has been located and tested, the group can decide what make and type of wind turbine to buy. "Wind technology is now mature" Tom Pedersen, a representative of Vestas, the biggest manufacturer of wind turbines in the world, told a packed meeting of sober-suited businesspeople, civil servants and bankers in Dublin early in 1994. "The typical Danish concept of a three-bladed, fixed-speed turbine is based on sound principles and over the years we have refined the design to such an extent that the average availability when installed is over 99%. The only development going on at Vestas now is to increase the size - we have a 1.5MW machine on the drawing board as this would be more cost effective - but we have become very conservative. In fact, I think we are now even more conservative than the utility companies themselves."



*Graph 5.2 As the size of wind turbines has increased, the cost per kilowatt of capacity has fallen. Given a good site, they are now entirely competitive with electricity from other sources. The data here is based on experience with wind energy in California.*

As a result, Pedersen argued, groups shopping for a wind turbine did not need to worry about the technology embodied in it. What was far more important was the credibility of the manufacturer. "The relationship between a windfarm developer and a wind turbine supplier is not just a straightforward sale but more like a 20-year marriage" he said. "The main thing that developers need to satisfy themselves about is whether the supplier is financially strong enough to fulfil any warranty obligations and to be around to supply spare parts for many years into the future."

This was subtle sales-talk, of course, emphasising the points on which Vestas scores over smaller, younger, less well-capitalised rivals, whose equipment might not have the same lengthy track-record and therefore be less acceptable to banks and insurers. It was the windpower industry's equivalent of the slogan 'No-one ever got sacked for ordering IBM'. Nevertheless, he was broadly correct: the generation of electricity from the wind no longer involves the use of risky, experimental technologies. Moreover, it produces power at lower financial and environmental costs than any other form of renewable energy apart from small-scale hydro and, as the chart shows, already produces electricity at a comparable cost to that from a new coal-fired power station if the latter has to bear the European Commission's proposed combined carbon and energy tax. Within a few years wind will be the cheapest source of electricity apart from that from gas-fired power stations if promised falls in capital and maintenance costs occur.

But although Danish designs are effective and reliable, not everything is settled for all time in wind turbine design. Even in Denmark itself, as Pedersen explained, manufacturers are split over whether the blades should be fixed in position on the hub of the machine - this is referred to as stall-regulated and is cheaper and less complicated - or whether they should be able to alter their angle of incidence to the wind. This is called pitch regulation and although it costs more and is potentially less reliable, it enables more energy to be extracted from the wind by a given turbine on a particular site. It also allows the blades to be aligned with the wind in storms, reducing stresses on the whole turbine and tower structure.

Other Europeans and the Japanese have generally followed the Danish design philosophy but American companies such as Carter, Enertech, US Windpower and ESI have drawn on aerospace technologies and materials to produce machines of between one-third and a half of the weight of most Danish turbines. Not unexpectedly, there were teething problems with most of these lightweight designs, particularly with the drive-train. These problems have apparently still to be completely overcome.

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#### **Nov 2002 update by Caroline Whyte**

The US companies mentioned in the original text no longer exist in their previous form. Consolidation, mergers and bankruptcies have taken place. Lee Jay Fingersh from the National Wind Technology Center commented in an October 2002 e-mail that "the current player in the US in the large (utility class) wind turbine market is General Electric, specifically GE Wind Energy, formerly Enron Wind, formerly Zond".

Fingersh adds that "we are still working on 'lighter' machines. However, this is within the context of scaling the machines up to much, much larger sizes. Current machines in production are in the 1.5 MW class which roughly equates to a rotor diameter of 70 meters. These are very large machines. However, much larger machines are currently in the prototype stages. Even though these machines are large and therefore heavy, they are designed to be as light as possible for their size."

"As to the drive train, problems remain but are being aggressively dealt with. We have built a very large dynamometer here at the NWTC for testing large-scale drive trains and improvements have



been made. Contracts are in place with several companies to create new, more unique drive trains specifically to address the issues of weight, reliability, efficiency and cost."

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The third step is financing which will present much more of a problem in Britain and Ireland than in Denmark where wind guilds are so commonplace that prospective members can readily borrow almost all the money they need for their share of the investment from their local bank. All they have to do is to sign a standard agreement that their share of the income from electricity sales will be paid directly to the bank to discharge the loan. No additional security is usually required although the bank will probably want details of the make of turbine and proof that it is insured. Membership of a wind guild is restricted to residents of the parish in which the turbine will be erected and the parishes immediately adjoining it. All members do not necessarily invest the same amount, but each family's share of the investment and hence of the income from power sales is limited to 1.5 times their average annual household electricity consumption with an overall maximum of 9,000kWh. This limit is imposed because up to that level, a member's earnings from electricity sales are completely free of income tax. Voting in the guilds, however, is based on the traditional co-operative one-member-one-vote-regardless-of-the-size-of-investment principle.

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#### PANEL: HOW THREE FAMILIES CREATED A MOVEMENT AND BOOSTED AN INDUSTRY



*The three couples who pioneered wind energy in Denmark, with their turbine in early 1996. From the left, are Aage and Erna Sørensen, Inge-Lise and Per Lauritsen and Hans and Mary Vangkilde. "If the picture had been taken in 1980, there would have been nine children as well," Per Lauritsen says.*

When OPEC tripled world oil prices in 1979, the Lauritsen family who live in a rural area just outside Aarhus in Denmark, wondered what they should do. "As we used oil to heat our house, we looked for ways in which we could save money and, maybe, help the nation too" Per Lauritsen says. "96% of Denmark's electricity was being generated from oil at the time."

There were not too many options to consider. There was no firewood they could cut on their property and Lauritsen, who is an architect, had designed his family's house to be energy



efficient and to make good use of the sun. So the wind, which blows almost unchecked off the North Sea across the low-lying Jutland peninsula, seemed to be the best possibility, particularly as a long series of experiments in the area had shown windpower's feasibility. Eighty-eight years previously, in 1891, for example, the 'Danish Edison', a folk high school teacher called Poul la Cour, had become the first person in the world to use wind electricity for lighting and heating, although so unreliable and costly were the carbon filament light bulbs available at the time that he had had to electrolyse water and pipe the hydrogen this produced to gaslights in his school in Askov, a village in south Jutland, and to the village itself.

The two world wars and the depression of the early 1930s had stimulated further experiments and, by 1944, some reasonably reliable and productive wind-powered generating sets had become commercially available. After the war, however, as soon as normal coal and oil imports became possible again, the market for this equipment disappeared, just as it did for a small British turbine produced at the time, the Lucas Freelight. But the lessons of the war had not been lost on the Danish electricity distribution companies who, after further research, built an experimental wind turbine in the mid 1950s with government support. This was sited at Gedser on the Falster peninsula which stretches into the Baltic at the far south of Denmark. It had worked well and produced 400,000 kWh a year from its 200kW generator and 24-metre sails until it was closed in 1962 after accountants pointed out that its output was twice as expensive as that from a conventional station.

As a result of the Gedser turbine's 'failure', the Danish government ignored the possibility of windpower development when the cheap energy bubble burst during the first OPEC crisis in 1973. Instead, it gave its atomic energy research establishment, Risø, extra funds. As a result, although Risø opened a test station for windturbines in 1976, it was largely left to a few individuals to try to commercialise them. One of these pioneers was a carpenter in west Jutland, Christian Risager, who built a 22kW machine with a 12m high tower and blades made from glass reinforced plastic. This met all the local electricity company's requirements and, although many obstacles were placed in his way, he was eventually able to couple it to the national grid.

Risager and his wife, Boe, set up a company in 1978 to manufacture the turbines and by the time the Lauritsens became interested in wind energy, about twelve of the Risager machines had been erected around the country. Unfortunately, though, these turbines proved very unreliable and claims for damages from the twelve owners, who had grouped themselves together in an association, Danske Vindkraftvaerker (Danish Windpower Stations), drove the couple out of business. Nevertheless, the Risagers had shown what could be done and other manufacturers entered the market.

The Lauritsens suggested to their neighbours, the Bangkildes, who are teachers, and the Sorensens, who are farmers, that the three families should jointly buy a turbine to meet their energy needs and that any surplus electricity should be sold to the grid. "We had good relations with our neighbours and shared a snow-plough with them" Inger-Lise Lauritsen says. A lot of money was involved - 350,000Kr, about £35,000, or £12,000 per family for a 55kW machine - and although both the other families needed loans secured on their properties to raise this, they said they would go ahead.

The local electricity company - Denmark has 110 regional power distributors - was much less enthusiastic. In fact, it said quite categorically that there was no question of its accepting their power. It took political lobbying, a debate in the Folketing (parliament) and the direct intervention of the Minister for Energy before the grid connection was made.

But at what price, and on what basis was their power to be purchased? "All previous wind turbines had been owned either by companies or by individuals. Ours was the first needing a connection which was owned by a group of people who wanted to use some of its power for themselves" Per Lauritsen says. "It took two years of negotiations but the agreement we reached has formed the basis of all subsequent group connections. Essentially, we delivered all the power

we produced to the public network, for which we were paid 85% of the household price and we bought back all the electricity we needed at the full price. We used the public network to bring the power to our homes."

This agreement opened the floodgates. Per was almost overwhelmed by people telephoning to ask him to help them set up their own turbines. He joined Danske Vindkraftvaerker (DV) and was elected to the committee. "I lost him to the movement" Inger-Lise says. A total of 377 turbines were installed in 1979 and 1980 and windpower guilds were set up all over the country, drawing on a rural co-operative tradition which is very similar to that in Ireland.

"The only limitation was that all members of a guild had to live in the same electricity supply area and within 3km. of its turbine" says Flemming Tranæs, DV's chairman in 1993. "The idea was that if anyone in the area around the turbine suffered any inconvenience from it, it should be those who enjoyed its advantages. Well-to-do people from the cities were not to be allowed to invest in turbines and gain the advantage of cheaper electricity without being affected by any noise or visual disturbance at the turbine sites. This approach fits in well with the co-operative idea that you establish your enterprise in the area where you live and among the people with whom you share your life, for good or bad."

Everyone connected with wind energy in Denmark - and DV had over 9,100 members at the end of 1995 - believes that had the Lauritsen group not been able to negotiate such favourable terms, windpower guilds would not have developed and the Danish wind energy industry would have been far less successful. In 1994, Denmark held 40% of the world market for wind turbines and generated 4% of its electricity from the wind, two-thirds of which came from collectively-owned machines.

Certainly, the emergence of the guilds - which are partnerships rather than co-ops because Danish law does not allow the members of a co-operative to set the interest they pay on its loans against their personal income tax - was a crucial factor in generating political support for the development of windpower. The first fruit of this was the adoption by the Folketing of the 1981 Energy Plan, which gave the green light to wind power by making grants covering one-third of an installation's cost available for the first time.

In 1984, the grants were replaced by a subsidy of 15.5 ore (1.5p) plus VAT for every kWh supplied to the grid. As a result, the buying price in 1994 was between 60 and 65 ore per kWh, depending on the price of power to the consumer price in the area in which the turbine was located. This was equivalent to roughly 6.5p per unit, and included a 27 ore (2.7p) state subsidy. According to Johannes Poulsen, the managing director of Vestas, Denmark's and the world's largest turbine manufacturer, this price was enough to give a 15% return on the capital invested.

Not everything was plain sailing, however, because some power companies charged unreasonable amounts to connect turbines to their grid and cut the payments for the power they bought by deducting the fixed charge that would have been payable if a wind turbine had been an electric motor of the same capacity. When DV published a report on these abuses in 1984, the government announced it would introduce a law governing the relationships between turbine operators and power companies. This was the last thing the power companies wanted and they hastily offered DV a ten-year agreement under which grid connection costs were shared between utility and producer and the buying price was paid with no deductions.

"The resistance of the electricity companies to wind power arose because they were opposed to anything which could prevent them using nuclear energy" says Flemming Tranæs. "They wanted central management of electricity production. Turbine owners can tell incredible stories about the way power companies did whatever they could to prevent the erection of wind turbines. However, our association got as much press coverage for these cases as possible and gradually the politicians and the public came to see that the companies were determined to carry through their own energy policy, not that of the government or parliament. After the 1984 agreement, however,

on the whole, things went well. Nevertheless we deliberately selected May 4th, the anniversary of Denmark's liberation from Nazi occupation, as the date of DV's foundation because of the level of official mistrust and resistance the concept of wind energy met."

The guilds also played an important role in ensuring turbine quality. "There were a number of confrontations between the association and some of the first manufacturers in the market" says Flemming Tranæs. "Some wanted to make money quickly, others had products that were simply not good enough. In two cases, after long unsuccessful negotiations, we had to expose firms in the monthly trade magazine *Naturlig Energi* and in both cases the businesses ceased trading shortly afterwards."

Having the association behind them certainly helped the Lauritsens. In 1981, they learned that that blades had broken off at least two machines of the same model as theirs. "We stopped orders for fear that someone would be hurt until the makers, Vestas, came and fitted new blades free" Inger-Marie says. Then, in 1985, their turbine's brakes and gearbox gave trouble, so Vestas bought the machine back at the price they had paid in part exchange for a new model. "It suited Vestas to get it back to preserve their reputation. They used it for research" Per comments.

Today, *Naturlig Energi* publishes a 19-page performance table each month for the majority of the turbines installed in Denmark. As this shows the amount of electricity each installation has produced and states whether there have been any technical problems, it naturally keeps manufacturers on their toes. "It's certainly harmed the sales of firms who promise people wonders but cannot back their claims up with actual data for their product on a good, windy site. The table also decisively demonstrates the importance of siting turbines well" Tranæs says.

How have the Lauritsens, the Bangkildes and the Sorensens fared financially as a result of owning their own turbine? "It's difficult to say we've made money" Per Lauritsen says, although he agrees they have definitely had lower heating bills. This is because they use almost three-quarters of their installation's 120,000 kWh annual output themselves: the Lauritsens took out their oil-fired central heating and replaced it with an electrically-driven heat pump system which they share with the Bangkildes, while the Sorensens have electric water-filled radiators. This level of consumption is much above average: normally 1,000 kWh would be taken as sufficient electricity to meet one person's domestic needs for a year.

There is no doubt, however, that installing the turbine changed the Lauritsens' lives. In 1983, Per and a friend, Ole Johansen, submitted a successful proposal to the Danish Energy Commission for grant aid for the construction of a wind farm to demonstrate Danish turbines to foreign buyers. The farm, which won the partners the 1985 Energy Prize, now has 45 turbines worth around £3m producing sufficient power for around 8,000 people. In 1992, a third partner, Jorgen Dinesen, joined them in opening a windpark grant-aided by the EC near Sines in Portugal. Each turbine there is computer-controlled and Per regularly monitors their performance on his PC in his office at home.

The windpower movement has done well too. At the end of 1995, DV's members owned 2,090 turbines, almost two-thirds of the Danish total, and there were 52,500 people in the turbine guilds associated with it, although many wind guilds were not. Flemming Tranaes is worried however. "The idealists as a percentage are getting fewer and fewer. In many new guilds which are being established, enthusiasm for working in a co-operative in your local community and the environmental benefits of windpower are no longer so important. What makes people get involved today is the prospect of a good investment and a reasonable rate of return."

Looked at from another perspective, however, these changes merely indicate that wind energy in Denmark is no longer the exclusive preserve of idealistic enthusiasts and has ceased to be a fringe activity. It has entered the mainstream and is successful and mature.

2002: According to Torgny Møller of Windpower Monthly magazine, "the total number of turbines [in Denmark] today should be about 6,000 and approx. 17 per cent of the electricity used in the country is delivered by them". Projections show that by next year 21 per cent of electricity will be produced by wind power, out of a total of 27 per cent produced by renewable energy. Approximately 20,000 people are now employed in wind-energy related jobs in Denmark. Over 100,000 Danish families now hold shares in wind guilds, which own eighty-five per cent of the country's turbines. (Source: Sarah MacDonald, *Sunday Independent*, Nov 3rd 2002.)

May 2004: A study by the Lawrence Berkeley National Laboratory in the US outlines the development of community-owned wind projects there. The study authors speculate that these projects may be reaching a "tipping point" beyond which they will spread more widely in the US. A brief report on the study can be read at the Solar Access website, at <http://solaraccess.com/news/story?storyid=6675>, and the study itself is at [http://eetd.lbl.gov/ea/EMS/cases/community\\_wind.pdf](http://eetd.lbl.gov/ea/EMS/cases/community_wind.pdf) (PDF document).

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Viola Jorgensen, a member of a wind guild in Vederso which owns three 75kW Vestas turbines, told Bridget Gubbins: "The association started in 1986. The cost of a share is 3,400DKr (about £300) and most people took out a loan [for the balance of the investment required, around £5,000] from the local bank, to be paid back over ten years. We do it for fun and we make a little money. It's our money from our wind. Members include a headmaster, a janitor, a plumber, everyone you can think of. When our payments come in from the utility for our electricity, the local savings bank calculates how much money goes to each member and credits their accounts. This is the same bank we borrow from. Once the bank loan is paid off, members have almost free electricity."

In Britain, no financial institution has shown any readiness to help fund a wind co-op set up on similar lines, largely because they have not been asked. Mercury Provident, the ethical bank discussed in the last chapter, was commissioned by the Energy Technology Support Unit (ETSU) of the Department of Trade and Industry to look into the feasibility of a wind energy investment fund but went off in the wrong direction. "A financing gap exists between the maximum level a bank [branch] is prepared to lend (around £200,000) and the minimum level at which project finance departments of major banks are prepared to lend (about £2m.)" it reported in 1994 <sup>15</sup>, a finding relevant to a far wider range of activities than wind energy. The result was that finance in the £200,000 - £2m. range was particularly difficult to obtain. "With some banks charging minimum fees of £100,000 to arrange a loan, fees can be prohibitive for small projects" it added.

Unfortunately, rather than investigating how wind projects could be structured on Danish lines so that no branch manager was asked to make a single loan of more than £200,000 but made lots of smaller ones to individuals, Mercury decided to set up The Wind Fund plc in partnership with a Dutch bank, Triodos, with which it later merged, to raise £5m. to provide share capital to windfarms. "We found that share capital was even harder to obtain than bank loans" Glen Saunders, a Mercury director, told me, explaining that Mercury would be providing part of the bank loans that The Wind Fund projects required itself and that he was confident that other banks would put up the rest. The initial rate of

return required by The Wind Fund is over 12.5% and projections in its prospectus show this rising to 48% within 15 years. Community projects should therefore look for finance elsewhere.

As far as I can establish, the Inishowen Energy Co-operative in Co. Donegal is further along the road towards the establishment of a community wind power project than anywhere else in the British Isles. The co-op, which started with eight members and was set up by Stan McWilliams, a farmer and nurseryman, and Barney Walsh, a community worker in Derry, aims to help local people become involved in the development of sustainable renewable energy sources on the Inishowen peninsula. Immediately after its launch in May 1994, it showed videos and organised discussions in the main towns on the peninsula to alert people to the prospects for renewable energy. "We knew there was going to be a lot of commercial wind energy companies prospecting the area, so we thought there ought to be some public discussion" Stan McWilliams says.

A young German, Reiner Eschwey, announced at one of the meetings that he was already measuring windspeeds at Drumlough. He joined the co-op and the data from his instruments were given to a US firm, New World Power, which agreed to give the co-op a seat on its board and 1% of the revenue from a £5m. windfarm it is to build there. The co-op has also had discussions with two companies which use of £10,000-worth of electricity a year to keep potatoes in cold storage and McWilliams is optimistic the cost-benefit figures are good enough to ensure that at least one of them will install a windturbine to cut its consumption from the mains.

Besides publishing a detailed assessment of the prospects for developing several types of renewable energy in Inishowen<sup>16</sup>, the co-op has investigated two small hydropower sites and, in association with the county council, the prospects for growing coppiced willow and chipping it to heat a proposed community education centre. "As a result of our contacts with the county council, they are already thinking about how they can become more involved in energy self reliance and are looking at plans for an energy-efficient housing project" Williams says.

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**March 2003 update:** Although, sadly, Barney Walsh died in October, 2000, Stan McWilliams persisted in his efforts to enable the Inishowen community to invest in wind energy. In July 2001 he and some friends set up an organisation, Bri Nua, to act as a vehicle to community investment into a windfarm for which he had obtained planning consent and other projects. McWilliams then encouraged me to set up a similar organisation in Mayo - the Mayo Community Wind Energy Group - so that public money could be obtained to carry out a feasibility study into the best way of raising and directing local money. The two groups raised 15,000 euros from their local Leader companies and this was parlayed into 75,000 euros with further grants from the Western Development Commission and Sustainable Energy Ireland. The contract for the feasibility study was awarded in February 2003 and the report is expected in July.

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### 3. BIOMASS

Inishowen's wind energy potential is exceptional and most places will probably find, like Hatherleigh, that biomass (plants and plant residues) is their most promising renewable energy resource. In all probability too, they will decide it makes sense for them to explore how they can turn their existing agricultural and forestry waste into useful energy before examining whether they should grow plants specially for energy as well. In Britain and Ireland, forest and sawmill residue, animal dung and cereal straw are the most common plant wastes with good energy potential while willows and poplars are the species most likely to be planted for fuel.

### *Straw*

In a sustainable agricultural system involving mixed (i.e. arable and pasture) farming, it is doubtful if significant quantities of straw would ever be available for use as fuel because it would be used for feeding and bedding animals before being composted in a biogas digester. Many organic farms outside the main cereal-growing areas already find it difficult or expensive to get supplies. However, in the prairie-lands of the East of England under the present unsustainable system of agriculture, every four tonnes of grain harvested by the combine leaves two tonnes of straw in the field with the energy equivalent of a tonne of coal. About 12 million tonnes of straw is produced there each year and since only half of this is fed to animals or used for their bedding, this leaves a surplus of some 6m. tonnes. Although this contains calories equivalent to about 1% of the UK's total energy consumption until the law was changed recently it was burned off in the fields largely because it is unsuitable for large-scale, centralised power producers as it is bulky even when baled and therefore expensive to transport far. Consequently, if straw is to be burned for energy, it has to be exploited on a local basis.

In any case, burning straw needs a special furnace because, like other types of biomass, 70% of it becomes a gas when heated, and a mixture of ash and char is left which will only burn if more oxygen is made available. This characteristic makes it suitable for combustion in the gasifiers we will be discussing later but despite this, most of the research in Britain has been into ways in which it can be used to replace coal in standard furnaces. Two approaches have been developed. One is to chop it into short lengths and blow it in on top of the burning coal. The second is to turn it into 'wafers' (pellets) so that it can be handled by conventional automatic stoking systems and replace coal entirely. This latter process may 'expand the use of straw as a fuel into the rural industrial markets and perhaps even into the domestic market' according to an official Energy Technology Support Unit report<sup>17</sup>.

There have been several commercially successful demonstrations of the use of straw as fuel in Britain. Two hospitals in Birmingham, the Queen Elizabeth and the General, blew it into their boilers and cut their coal consumption by half. Woburn Abbey has a furnace which consumes 400 tonnes of straw bales a year to heat the main buildings. And an Ipswich company, Needham Chalks, is using 2,000 tonnes of straw a year to dry up to 45 tonnes of chalk an hour<sup>18</sup>.

However, as in other renewable energy areas, it is the Danes who have shown what really can be done. 12,000 Danish farms have straw-burning boilers and the first straw-fired district heating system was built in 1979. Fourteen years later there were sixty throughout the country, many in places where no district heating system had existed before so that pipes had to be run to take heat to the houses. "Even plants as small as 2MJ/s, corresponding to roughly 200 single family houses are economic" Dr. Jørgen Boldt of the Danish Energy Agency told a conference in Helsinki in 1993 <sup>19</sup>. "The plants are reliable and have an efficiency of 80-90%, which is comparable with coal-fired ones, and they generate less pollution. They are economically competitive too. The initial and operating costs are higher than for oil-fired plants but the fuel costs are lower, even ignoring the energy tax. (The Danish government has imposed a tax on oil to cover some of the environmental damage its combustion causes. The amount of the tax rises whenever the world price of oil falls, and falls when it rises so that the consumer pays a near-constant price.) The combined effect of the energy tax and government grants towards the capital cost of renewable energy projects was to make district heating with straw 20% cheaper than with oil, Boldt said. Nevertheless, only a fifth of the surplus straw was being burned in 1992; but when the resource is fully developed it will provide 7% of Denmark's energy.

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**Nov 2002 update by Caroline Whyte:** The Danish government's policy is to increase the amount of energy produced by straw by 1% per annum. As of 2000, the percentage of Danish power produced by renewables was 10%, with the bulk of the increase brought about by the greater use of straw. A detailed description of the Danish policy can be found online at [www.videncenter.dk:lookunder\"publications\"and then click on \"Straw for Energy Production\"](http://www.videncenter.dk:lookunder\).

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About a third of the total above-ground mass of a conifer never reaches the sawmill but is normally left to rot on the forest floor. However, this residue can be burned as fuel, as can the early thinnings too small for pulping or chipboard manufacture which are produced by some modern forestry systems. In Sweden, both types of waste are normally left where they fall to dry out naturally during the summer months before being chipped in the forest and taken away to complete the drying process under cover. From then on they can be treated exactly like chips produced in the specially-grown plantations we will be discussing shortly. However, two points need to be considered by any community considering this resource. One is that, like straw, wood chips are bulky, and so need to be burned close to the forest. The second is that while the trunk of a tree is very little more than a combination of water and carbon dioxide, its leaves and small branches contain most of the minerals it has extracted from the soil during its life - which is why leaf mould is so good for the garden. Consequently, if leaves and twigs are taken away, the forest will lose nutrients and, unless these are replaced or returned, it will become less fertile. In other words, the burning of forest waste will not be sustainable unless the ash is returned. All forms of biomass energy share this nutrient-loss problem to a greater or lesser extent.

### *Animal Dung*

Surprisingly, a cow extracts only 10-15% of the energy in the grass she eats. The rest is passed out in her dung, a fact which explains why slurry (the mixture of dung and urine which collects in tanks or 'lagoons' near the sheds with slatted floors in which most cattle now spend their winters) can be so damaging if it gets into streams accidentally. Its high energy content means that a lot of oxygen is absorbed when it breaks down and if the oxygen is taken from the water in a river, too little can be left for the fish and they drown.

"A medium-sized cattle house produces about 33 tonnes of beef a year - and 3,000 tonnes of slurry" says Les Gornall, who has been working on ways of extracting the energy from slurry in association with the University of Ulster at Coleraine in Northern Ireland since 1978. "[That amount of slurry] contains methane of at least the value of the beef together with 300 tonnes of fibrous matter which is almost all carbon and as good as 300 tonnes of best anthracite. But at the moment, farmers concentrate on those two lorry loads of beef and throw away the 30 lorry loads of coal."

Gornall set out to develop a system which would allow slurry to decay in the absence of air to produce a methane-rich gas which could be burned as a fuel. This was scarcely new. The Italian scientist, Count Volta, had shown that methane was given off by decaying vegetation in 1776 and by the time Gornall started work, the Indian and Chinese governments already had major programmes under way building digesters - tanks in which animal, human and plant waste rotted to produce gas for cooking purposes - in tens of thousands of villages. But these were countries in which labour was cheap and higher temperatures enabled decay to proceed more rapidly. What Gornall and a number of other workers in Europe were hoping to develop were digesters which were reliable and cheap enough to be attractive to individual farmers in temperate climates with high labour costs.

His first big success came in 1984 when he won a contract to install a digester to handle the slurry from 300 cattle kept by the Cistercian monks of Bethlehem Abbey at Portglenone in Co. Antrim. The gas was piped to the abbey itself to fire the central heating system; the fibrous residue was composted and sold for horticulture and the remaining liquid was sprayed on the abbey's land. This returned most of the nutrients in the dung to the soil, eliminating the need for chemical fertilisers and allowing the monks' system of organic farming to continue. A problem waste became an asset worth £60,000 a year.

Work on farm-scale digesters was going on simultaneously in Denmark but results from the forty-odd farms on which they were installed were disappointing. This was partly because the digesters themselves were inadequate but mainly because the farmers gave attending to them very low priority: they always felt they had something more important to do. As a result, three-quarters of the prototypes fell out of use fairly quickly and the national effort shifted to developing bigger digesters which could serve several farms and thus warrant a full-time manager. These centralised digesters had the added advantage of taking less capital to build per farm served and being better able to meet steadily rising environmental standards. The first was built at Vester Hjermitstev in the extreme northwest of Jutland in 1984, and ten years later fifteen centralised digesters were in operation and another five planned or under construction. Nevertheless, Denmark was



exploiting only about 3% of its biogas resource and only one of the first nine plants had achieved a break-even income. Despite this, a 1992 Danish Energy Agency report concluded that if the lessons from the existing plants was incorporated into new ones they would be profitable without state grants provided Denmark's taxes on fossil energy were maintained<sup>20</sup>. This seems to have been borne out by a digester at Hashøj, southwest of Copenhagen, which opened in May 1994 and which had significantly lower capital costs and extracted more gas from its slurry than its predecessors. However, had such 'poor' initial results been obtained in most other countries, detractors would have had a field day and the effort would have been abandoned as a flop. Instead, the Danes learned from their experiences and, by now, have gone through five cycles of designing, building and testing.

So far, centralised co-operatively-owned digesters have not reached the British Isles but that statement will be out of date by 1998 if Mary O'Donnell's efforts bear fruit. Mary, who is married with a grown family, was one of the founders of Earthwatch, the Irish arm of Friends of the Earth. In 1991, she had left the organisation and was looking for an activity, preferably in the environmental area, which would create jobs in West Cork where she lives. She and her husband Jim, who runs a furniture manufacturing business, had been working with Jerry O'Sullivan, the manager of the West Cork Institute for Rural Development of which Jim was chairman, investigating the possibility of setting up a factory to build modular farm-scale methane digesters using technology developed by Professor Martin Newell of University College, Galway. However, during an environmental conference she had helped organise in Skibbereen, her local town, she was advised to take another direction. "It was one of those discussions which take place out on the street at three in the morning after the pubs have closed" she says. "I was with Richard Byrne from the Danish company Krüger-Bigadan A/S, one of the leading designers of biogas plants and Iain Maclean, then Cork County Council's environmental officer and now the head of Ireland's national Environmental Protection Agency. 'Forget about farm scale, Mary,' Richard said, telling me about the problems that had arisen in Denmark. 'Go for centralised digesters.'"

And so she did. She knew Kieran McGowan, the head of the Industrial Development Authority (IDA) from the time he had worked for the Crafts Council of Ireland and rang him up to arrange a meeting at which she told him about her plan to turn waste into a resource. Why aren't these digesters used already? McGowan asked, and after she had told him he promised a £15,000 grant towards a feasibility study. This sounded wonderful but IDA grants present problems because they cover a maximum of half of the cost of a study and are only disbursed against receipted invoices after the costs have been paid. Where was she to get the money she had to spend to be able to collect the grant?

The West Cork Institute formed a special company, West Cork Biogas Ltd. to carry out the feasibility study and Mary became its project director. Skibbereen's credit union and its two banks gave the new firm £2,500, the Institute provided it with office space and gave the rent back as their contribution. Other people sent office equipment. Her husband's furniture business paid her salary in a way which enabled it to be considered as part of the £15,000 needed to match the IDA grant. Three years later, as this book went to

press, her feasibility study had convinced Cork County Council and a local farmers' co-operative, Drimagh, to put up a further £30,000 between them to employ consultants to take the project through to the construction stage.

"We've mapped the potential sources of waste within 10km of the proposed site" she told me. "There are sixty dairy and pig farms and we will be taking paunch contents from a slaughter house. 80% of the material going into digester will be slurry. The rest will be sorted household waste, sewage sludge - that's great for gas making - and residues from a cheese factory. The County Manager has promised to bring forward the construction of sewage treatment plants in the small towns in the area so that we can get the sludge. We've already started mapping for a similar plant in the north of the county and we'll move to the east later."

In O'Donnell's proposal, the gas from the digester will be used to generate electricity and the heat from the engine's exhaust piped to greenhouses. Some of the fibre will be composted and sold to gardeners and the rest will be mixed with wood chips and briquetted to be sold as a domestic fuel. The liquid from the digester will go back to the farmers' land, as it does at Bethlehem Abbey.

"Spraying digester liquor on the land is much better for the farmer than spreading slurry because, as it does not contain fibres, it can be sprayed over the whole farm, including growing grass," she says. Moreover, because its nitrogen content is readily absorbed by the plants, farmers have been able to cut their nitrogenous fertiliser purchases by over half.

"There's much less risk of pollution" O'Donnell says. "Farmers often have to spread slurry in wet weather because their tanks are overflowing and the streams suffer the run-off. But if there is a digester in the area, the slurry can be collected, treated, and the de-gassed liquor delivered back to them when and where they want it. The biggest advantage of the liquor, however, is that unlike slurry, it contains no weed seeds and no pathogens and there's less recycling of intestinal bugs. Studies of farms using it show their vets' bills are significantly down." Other studies have shown higher milk yields, less lameness, increased animal fertility and a longer grazing season. Grain crops sprayed with liquor are less liable to lodging.

O'Donnell cannot praise the Danish Energy Agency and the Agricultural Economics Institute<sup>21</sup> highly enough for the help she received. "They publish regular updates on technology in English and have spent an extraordinary amount of time answering questions on every aspect of the project," she says, adding that the West Cork digester project could easily be replicated elsewhere and that she and Les Gornall are working together on proposals for one at Castlederg in County Tyrone. These involve the construction of a 1MW biogas-fired power station which will take slurry from two large farms with 3000 cattle between them. However, O'Donnell and Gornall hope that smaller farmers will want to participate too. "I knew at the outset that this was a five-year project" O'Donnell says. "It's still just bits of paper but there's still two years to go."

### *Growing special energy crops*

While it certainly makes sense to use waste products like farm slurry or surplus straw to produce electricity or heat a house, is it equally sensible to grow crops such as oilseed rape (canola) or coppice willow as a source of power and heat? Industrial agriculture is now so energy intensive and the price signals given to the market system are so distorted by subsidies that it could easily be commercially attractive to use more fossil energy to grow energy crops than can be usefully recovered when they burn.

Just how easily is illustrated by rape oil, which although it has a very poor energy-in/energy-out ratio, has been the subject of many demonstration projects to show how successfully it can be used to replace diesel fuel - for example, a treated version of it as used to run part of Reading's bus fleet recently and in Ireland it powers food delivery vans in Waterford. But according to a study prepared for the British Department of Trade and Industry's Energy Technology Support Unit (ETSU) in 1992, growing rape purely for oil to turn into biodiesel produces only 35% more energy than the farmer puts in, a return which makes the effort a nonsense<sup>22</sup>. If the rest of the plant is used for energy too, the ratio naturally improves but the plant's performance is still very poor and a 1990 Irish study, *Liquid Fuels from Conventional Agricultural Crops*, found that more external energy was needed to produce a litre of rape oil than the equivalent amount of any other crop-based liquid fuel it investigated. Ethyl alcohol from sugar beet proved a much better proposition in both energy and commercial terms as the bi-products of the process were very valuable<sup>23</sup>. A German study found that using biodiesel in a vehicle would cut its greenhouse gas emissions by only 25% and that this gain had to be set against the damage done to the soil and the environment generally by the chemicals used to grow the crop<sup>24</sup>.

Yet in spite of rape oil's poor showing, governments have been urged by farming groups to provide subsidies to make its production and sale commercially viable. "Rape seed oil is competitive with diesel fuel provided the EC crushing subsidy is available" another Irish report said in 1991, arguing that as the subsidy was equivalent to 70% of the cost producing the rape seed and the farmer could sell the extraction residue as cattle food for another 45%, he or she would be able to sell the oil for 10p per litre, the cost of extracting it, and match the pre-tax-and-duty price of diesel fuel at the time<sup>25</sup>.

The coppicing of fast-growing trees like poplar and willow produces a much more favourable fossil-energy in/renewable-energy out ratio. According to Caroline Foster of ETSU, this type of short-rotation can give thirty times as much energy in the form of dry woodchips as was used to produce them<sup>26</sup>. However, a lot depends on how well the crop grows and is managed, and it is generally accepted that a more realistic ratio is one to twenty. Foster's analysis not only took in the energy used to fence and plough the land, plant the crop, protect it from weed and fungal infestation with chemicals, cut it, stack it to dry, chip it and then transport the chips to the power plant, but also that which went into building the drying shed and a share of the amount used to build the tractor and other equipment.

Unfortunately, not all the energy in the wood chips can be extracted as useful power. The most efficient way to use them is to turn them to gas in a gasifier (which burns some of the chips to heat the rest and convert their volatiles into gas) and then burn the gas itself in an engine which powers a generator. This process allows about 60% of the energy in the chips to be captured, one third as electricity, two-thirds as heat. In other words, the overall outcome of growing willow, chipping it, drying it and burning it in a gasifier has been to promote one unit of a high-grade form of energy like diesel oil to about four units of a higher grade of energy, electricity, and 8 units of relatively low-grade energy, heat suitable for warming rooms.

Coppiced woodchip production is therefore only worthwhile if all the heat can be used, a fact well known to Malcolm Dawson who has been involved in the effort to turn specially-grown willows into useful energy for longer than perhaps anyone in the British Isles. Dawson works at the Horticultural Centre at Loughgall in Northern Ireland where experiments have been carried out since 1974. Under the system which has evolved, short lengths of fast-growing willow are pushed into a ploughed and weedkiller-treated field a metre by half a metre apart. They root and sprout and after three years, the long, thin shoots are cut and bundled by a special harvester attached to the back of a tractor, and the stumps left in the field to provide another crop. The bundles of willow wands contain 50% moisture when cut and are allowed to dry for three months in the open before being taken to a covered storage area where they are chipped. Drying continues - using exhaust heat from the generator-engine in the final stages - until the moisture content falls below 15% and the chips can be satisfactorily gasified. On average, each hectare of willow coppice produces the energy equivalent of 6 tonnes of oil a year. The highest yields are obtained if several willow species are grown together as this gives better protection against pests and disease and each type has slightly different requirements from the soil.

Dawson says that Northern Ireland has 200,000 hectares of rush-ridden rough grazing which would be ideal for willow coppice and he would like to see farmers' co-operatives set up to provide both electricity and heat to colleges, hospitals and factories in the province. "Two thirds of the energy in the willow is released as heat so you've got to have a use for that to make this operation attractive. You've also got to be able to displace electricity bought at retail prices rather than just selling it wholesale to the grid" he says. He therefore sees the farmers' co-ops installing gasifiers and generators on clients' premises and running them under contract. "The farmers will only get the maximum value-added if they do the whole thing in-house. Willow needs to be grown on a collective basis because the farms around here aren't big enough to supply a gasifier alone and it makes sense to use the harvesting equipment on more than one farm."

Dawson has been running a 100kW gasifier and a generator at Loughgall for several years to heat and light an agricultural college and a number of greenhouses and feels that the technology is now advanced enough for a demonstration project in an institution to go ahead, especially as woodchips have also proved themselves as a source of heat and light in many communities in Sweden which pipe the heat from house to house. I agree. When he arranged for the gasifier to be demonstrated to me, I was surprised how quickly it

began to make gas when starting from cold and how simple a device it was. Any competent welding shop ought to be able to make one.

Unfortunately, few farmers with suitable land seem to be interested in getting involved in producing wood chips because of subsidies for suckler cows and sheep. "They are getting direct EC grants worth £300/hectare. If we had that level of subsidy for short rotation forestry we'd be flying" Dawson says. As a result, if he can get a demonstration project under way as he hopes, the coppice is likely to be planted by non-farming landowners.

While Dawson has been testing willows for wood-chip, Mike Bulfin has been experimenting with poplars at the agricultural experimental station at Kinsealy near Dublin. Alders and ash are being evaluated elsewhere. Other people have been testing relatively small gasifiers, too, including Ben Warren of Bristol University's Mechanical Engineering Department who has a 30kW gasifier at Long Ashton Research Station outside Bristol. This is smaller than Dawson's and Warren thinks it would be suitable for installation on farms of over 50 hectares. But what would the farms do with the heat? Use it for glasshouses? "Well, we've got a lot of greenhouses here at Long Ashton and the unit produces more than enough to supply them," Warren says. As part of his work for a PhD, Warren has been carefully calculating the energy-in/electricity-out ratio and has produced much the same figures as Foster. "I think the ratio is about one to four" he says.

Three points should be made about this work. The first is that Dawson's technology for producing woodchips is very much an industrial one and the energy-in/energy-out balance would improve if more local inputs, such as labour and horses, were substituted for external ones such as weedkillers and tractors. The next is that unless it is done with the aim of achieving community energy self-reliance, it is silly to use fossil fuel, land and labour to produce woodchips for burning when straw or forest lop-and-top and thinnings are still going to waste somewhere in the country. The third is that the low-grade heat must be used. This will almost certainly involve building district heating systems to serve existing housing as is done extensively in the Netherlands, Denmark and Germany. In Denmark, for example, seven of the first nine centralised biogas digesters had networks of hot water piping built to nearby villages for them. However, biomass-fired district heating systems (BMDH) have probably proved more successful in Austria than anywhere else in Europe and in 1993, 36 plants were installed, 22 by farmers' co-ops, 10 by private firms, and two each by power utilities and municipalities. The first system was built by a sawmill operator in the village of Feldbach in 1979 and many of the 200-odd systems in place at the end of 1994 were in quite small communities.

"Villages with BMDH plants usually have between 500 and 3,000 inhabitants and are of a predominantly rural character" says an important EU-financed report, *Pathways from Small Scale Experiments to Sustainable Regional Development*, which looks at factors which affected the adoption of renewable energy technologies in four EU countries. "Accordingly, the size of BMDH plants varies between a few hundred kW and up to 8MW, with corresponding grids between 100 metres and 21 km. Almost two-thirds of the plants have a power of less than 1500 kW" the report goes on <sup>27</sup>.

While most of the early plants were erected by people in the timber industry with wood-waste to burn, farmers with a few hectares of trees who had been selling wood as one of their sources of income forced their co-ops to move into district heating when saw-lumber and pulpwood prices collapsed in the 1980s. This was particularly true in those parts of Austria with the poorest prospects of developing alternative activities for the rural population in tourism or industry. In these areas, the farmers lobbied their state-level political representatives especially hard and persuaded them to make 35% capital grants and an equal sum in low-interest loans available to the co-ops. A large part of the rest of the plants' cost was then raised from the connection fees paid by the owners of the homes to be heated.

Even with grants and the farmers behind them, the co-ops found it impossible to get a district heating plant built in some villages either because many of their inhabitants distrusted the new technology or objected to the traffic or the chimney it would mean. In general, the villages in which plants were built were those in which a lot of community activities were already taking place. Where a co-op built a plant in the face of local opposition, the financial out-turn was often poor because, with a high proportion of people refusing to be connected, it had to build longer pipelines to sell its heat. "We noticed that all the villages [with plants] we visited were characterised by numerous local associations of villagers sharing such hobbies as music, sports, preparation of local events, or the planting of trees and flowers in the village streets. Common celebrations and good communications within the village were another characteristic," the report says.

Community cohesion was not enough by itself, however. Idealism was needed too, from both a plant's promoters and its customers. "BMDH is neither a very good business for the operators nor a cheap way to heat for customers" the report says. "What are the motivations of local actors to realise a project?" Interviews in eighty villages showed that many promoters were concerned about the environment, wanted to improve forest management and believed that their plants might make an important contribution to autonomous regional development. Their customers participated because they were also concerned about the environment, wished to support local farmers and the development of their region, and also appreciated the time and work that centrally-supplied heat saved them.

Although the Germans have found that the capital cost is actually lower to instal district heating on a new housing estate than to fit each property with its own gas-fired boiler<sup>28</sup>, the attitude in Britain and Ireland is that people are too individualistic to agree to buy their heat that way. As a result, two 5.5MW woodchip-burning power stations to be built in 1996 by a regional electricity company, SWEB, one at Eye in Suffolk, the other near Cricklade in Wiltshire, will waste over half their energy. "We'll be using some of the heat to dry the chips before they go into the gasifier and are looking for other uses. It's not economic to pipe the heat to people's houses in Britain because of the availability of natural gas," a spokeswoman for SWEB told me. "Until recently, we were penalised under the government's Non Fossil Fuel Obligation arrangements if we used the low-grade heat for anything at all."

The wood for the chips will be grown under contract by farmers and forestry waste will be used when available. However, straw will not be burned, even though the Eye power station will be in the heart of cereal country. "It requires special arrangements in the furnace and the supply could be erratic because it would not be grown under contract and would depend on demand levels in another industry" the spokeswoman explained, leading me to think that although SWEB prides itself on being a leader in the renewable energy field <sup>29</sup>, its plans for both plants are not far removed from the 'let's-have-a-few-big-power-stations-near-the-coal-fields-and-not-bother-with-a-lot-of-little-ones-near-where-people-live-so-that-the-waste-heat-can-be-used' attitude of the old Central Electricity Generating Board.

Policy in Ireland is no more enlightened. At the end of 1995, the Department of Energy invited companies to submit proposals to build and operate a biomass or biogas-fired power station of up to 30MW capacity, the output to be sold to the grid at 3.6p per unit. A grant of up to £7.5m could be made towards the capital costs to make the project attractive. But the specifications made no mention of the station using its low-grade heat. "We had a competition for a CHP [combined heat and power] project recently" an official told me. "In this case, we haven't excluded it but we haven't included it either. We're waiting to see what the industry will come up with."<sup>30</sup> However, it would not be possible to favour a proposal which did use the low-grade heat. A district-heating add-on would have to be commercially viable by itself.

Growing coppice timber specifically for fuel may have a limited future. This is because willows and poplars only capture about 2% of the solar energy which falls on them when they convert it to wood, and, if the heat from the wood is wasted, only 0.4% of the sun's energy is still available by the time it becomes electricity. Compare this with the 18% rate of solar energy to electricity conversion already possible with commercial photo-voltaic (PV) cells and the 28% figure which has been reached in the laboratory, and it becomes apparent that specially-grown plants are a very poor way of harnessing the sun.

Modern PV cells already produce the amount of energy used in their manufacture in their first 2-3 years of life and their cost and energy content is falling dramatically as production methods improve: Professor Martin Green of the University of New South Wales has been able to reduce the materials cost per watt of capacity from US\$2 to ten cents by finding a way to make satisfactory cells containing higher levels of impurities <sup>31</sup>. As the first cells of the new type converted 15.2% of the sun's energy to electricity, the growing of wood chips for electricity will probably be doomed as soon as they enter volume production. This is just as well, as it will eliminate the danger that the rich will take over land to grow their fuel at the expense of the poor who needed it to grow their food. Moreover, if a totally different approach to PV technology claimed by Advanced Research Developments, Inc., of Athol, Mass., really stands up, the future of all other sources of power will be radically altered. ARD says that they are about to produce a plastic film which converts almost all of the incident solar energy into electricity at a cost of only 1 cent a watt <sup>32</sup>.

In the medium-term, the best type of plants to grow specifically for energy purposes might prove to be algae. A system developed at the University of the West Indies and at the University of the West of England in Bristol involves growing chlorella in transparent cylindrical tanks and then drying and milling it before mixing it with diesel oil and burning it in a diesel engine to generate electricity. The waste heat from the engine is used to dry the algae and the carbon dioxide given off by its combustion is dissolved back into the liquid in the tanks so that the next crop of algae can take it up. Other nutrients are also recycled.

It has been claimed that the algae convert 15% of the sunlight entering the tanks to usable energy and the cost of electricity generated this way is 2.5p/kWh when calculated on a typical commercial basis using a 10% interest rate and assuming a 15-year supply contract. It has also been said that a 2.5MW power plant using this system would need 7.5-10 hectares of chlorella tanks to supply it, compared with the 1,500 hectares of coppice that would be needed to supply the same amount of power and that the diesel content of the fuel could be as low as 5%. I have been unable to verify any of these claims, however, because the two companies involved in the commercial development of the technique, Biotechna-Graesser Ltd<sup>33</sup> and Photosynthesis UK Ltd. either did not respond to my repeated enquiries over a period of weeks or said that while they had the information I was seeking, it could not be found. Biotechna did say, however, that the technique was not yet in commercial use.

### *Future Prospects*

The electricity production and supply system which will probably emerge in the future is one in which consumers will use the national or international grid not so much as a source of supply but as a battery. Many households will produce their own electricity with a combination of solar panels on their roofs and biogas-powered generating sets and, whenever they have more than they need, they will 'bank' the surplus by feeding it into the grid. Equally, whenever they need more power than they are producing, they will take the shortfall from the mains: their meter will run both ways, buying power from them at rates which vary according to the time of day and the season and charging it out on several rates as well. The biogas would be piped to them from a neighbourhood digester and the waste heat from the engine used to warm the house, an approach which might be better in rural areas where the houses are dispersed than that used by the centralised biogas plants in Denmark with their big generators and miles of insulated pipes. FIAT is already manufacturing a single-house-sized CHP system, the Totem, but this needs modifying to run on biogas.

At University College, Cork, Professor Gerry Wrixon has developed a combined electrical generation system that may become commonplace in the future. It consists of a wind generator and a bank of PV cells coupled to an engine running on biogas. "If you look at these graphs" he says in his presentations, "you will see that when the wind is blowing it's usually overcast and we don't get much power from the PV system. On the other hand, when it is sunny, there is often little wind. The two systems, wind and PV, complement each other to a remarkable extent. However, for the periods when there is no



wind and no sun, we have the biogas engine. If you have your own digester this means that you can store the gas until you cannot get electricity from anything else."

A second change will be that the grid will become a common carrier for electricity rather than the distribution arm of a monopoly supplier. As a result, local generating stations will be able to send electricity through the existing network to their customers rather than selling it to a state or private monopoly. As we saw, this is already happening in Britain to a limited extent and will be extended further in 1998.

These changes in the way electricity is generated and the grid used are likely to come about whether communities aim for self-reliance or not. At a gathering of more than 200 executives from many of the world's leading power companies in Arizona in early 1995, a common theme was the way deregulation and technological change were changing the shape of their industry. "New power generation technologies are undermining the massive power stations that most people imagine is the only way to make electricity" David Lascelles wrote in his account of the meeting in *The Financial Times*. "In future, consumers will be served by the small, independent power stations that are already springing up, often owned by newcomers to the business. This could lead to miniature home generators which enable each household to make its own electricity, and even feed its surplus back to the grid."<sup>34</sup> If he is right, the two key questions are: will local, renewable resources be used to power these small generating stations and will local savings provide the capital to build them? Only if communities act decisively will the answers be 'Yes' to both.

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*2004 update: Community-based energy projects in the UK (by Caroline Whyte)*

A number of universities in Britain are currently carrying out a joint research project with the aim of evaluating the role of community initiatives in improving the uptake of sustainable energy technologies in the UK. A paper by Dr Patrick Devine-Wright, one of the academics involved with the project, can be read on the website in PDF format.

Dr Devine-Wright's study focused on the effects of a wind energy project in a former mining area of South Wales. He found that there was strong local support for the idea that wind farms should be developed in partnership with the community. A large majority of respondents also thought that profits from the farm should be put back into the local community, and that the energy produced by the farms should be used locally. A small majority stated that wind farms should be locally owned.

The website for the research project is at

<http://www.staffs.ac.uk/schools/sciences/geography/IESR/communityenergyproject.htm>

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## SAVING ENERGY

### 1. Savings in transport

Most communities will find it easier and cheaper to use less energy than to meet all their present power requirements with supplies from renewable sources. In most cases, too, they will find that they can make the biggest demand reductions in areas in which they consume the most.

In industrialised countries, this makes the transport sector the prime area for cuts. In the UK, for example, conventional breakdowns of energy use show that 33% of energy goes to power road vehicles, aircraft, ships and trains. This compares with the 27% of energy used by households, another 27% in industry, and 13% in buildings such as shops, offices, hospitals, libraries and schools. In the US, 31% of all energy goes to power the transport fleet and the Irish figure is 20%. However, these conventional breakdowns regard the energy that goes into building the docks, airports, roads, multi-storey car parks and the rest of the physical infrastructure that a modern transportation system needs as being used by the industrial sector. The energy used to construct the cars and planes, the ships and trains and to build the factories that build the vehicles is treated the same way. And as still more energy is used for such tasks as lighting the streets and providing packing materials which are not allocated to transport in the conventional total, it is easy to see why Ben Warren thinks that more than half the fossil energy burnt in industrial countries is consumed directly or indirectly by the transport sector<sup>35</sup>. This means that curbing transport activity is one of the most promising ways of reducing fossil energy use.

The amount of energy used for transportation in industrial countries has risen significantly over the past forty years not because more goods have been consumed but because roughly the same weight of goods has been moved over longer and longer distances as a result of the increasing concentration and sophistication of production: in Britain, the number of tonne-miles grew by 150% between 1952 and 1992 although the production of coal, steel and other bulk commodities all fell. This trend towards moving things further and further would obviously be slowed or reversed if communities began to do more for themselves. A study by Stefanie Böge of the Wuppertal Institute in Germany shows the potential in this direction. She took a very simple product, strawberry yoghurt, which can be made at home with milk and fruit from the immediate area, and worked out how far the industrial system meant its components had to travel before a small jar could reach the supermarket. The result? The surprising figure of 3,494km.<sup>36</sup>



The journeys made by all the materials needed in the modern economy to get a jar of strawberry yoghurt onto a supermarket shelf.

This huge total was reached not because the main ingredients had to travel very far to reach the dairy in Stuttgart. The milk, which comprised 78.9% of the jar's

contents, came from the surrounding countryside, and so did the sugar. The strawberries added some distance, though, since, totally unnecessarily, they were grown in Poland where labour is cheaper and sent for processing in Aachen near the Belgian border. However, as the map shows, the real culprits were the packing materials because, although the jar only had to travel 170km from a glassworks in Neuberg, the quartz sand to make it had to be brought 400km from Cologne, the paste for the label from Dusseldorf, the glue for the carton from Lüneburg, the plastic granules from Switzerland, the paper from Austria, the aluminium from Weiden and so on and so on. And since most of these packaging components had to be made with materials such as starch, resin, pulp or alumina brought from somewhere else, the trail became extremely long. Böge calculated that the yoghurt maker could cut transport distances by over a third just by introducing standardised re-usable jars which did not need to travel back to the original factory but could be re-filled with other food products by other firms, and adopting re-usable crates for the jars so that a new cardboard carton was not needed for every trip.

Under the present economic system, the least-energy efficient transport system, the movement of freight by road, enjoys substantial subsidies which have enabled it to expand at the expense of rail freight, which only requires a quarter of the energy, canals and coastal shipping. Böge quotes Dieter Teufel's 1989 study of the social costs moving freight by road which suggests that, in Germany, the tax on diesel fuel might need be increased enough to raise its price to five times its current level to compensate citizens for the health, social and environmental damage which lorries do. I have been unable to trace similar estimates for Britain <sup>37</sup>. Teufel's calculation of the tax shortfall is as follows:<sup>38</sup>

#### TRUCK COSTS IN GERMANY

Estimated total costs and tax income for lorries in West Germany in 1987

INCOME	
All taxes	6,724 million
COSTS	
Road expenditure	8,730 million
Accident costs	5,030 million
Accident-related distress	2,600 million
Air pollution	6,350 million
Noise costs (private dwellings)	9,850 million
Other noise costs	2,500 million
Congestion	2,000 million
Water pollution from dangerous goods	3,800 million
Water pollution from road salting	2,800 million
Health damage to lorry drivers	1,100 million
Other	1,200 million
Total costs	46,000 million
SUBSIDY GIVEN BY PUBLIC TO ROAD FREIGHT TRAFFIC	39,300 million

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Because he was just considering the social costs of moving goods by truck and not the overall costs of the transportation system, Teufel's figures leave out the considerable financial and environmental costs involved in the disposal of packaging materials plus the environmental ones caused by their production. These costs should be ascribed to the transport sector since, without packaging, goods could not be moved safely over long distances. In fact, the closer one looks at transport, the more subsidies appear but, as it is impossible to put reliable values on most of them, no-one knows the overall total. All we can say with certainty is that transport subsidies are huge and if they were removed, local manufacturers would be far better placed to compete in their local market with bigger firms based elsewhere and goods would tend to be moved by lower-energy, less environmentally-damaging forms of transportation such as rail, canal and sea.

There is very little communities can do on a local level about road freight subsidies except campaign to have heavy trucks kept off certain roads. But in one area of transport - the use of the private car - energy consumption is under their direct control. Car travel - and consequently, the amount of fossil energy it consumes - has increased sharply since World War II: in Britain, the annual distance travelled rose tenfold between 1952 and 1992. Threequarters of all journeys were under five miles. Car use itself increased car use by making it unsafe or unpleasant to walk and cycle and by reducing the frequency of public transport and lengthening its the journey time. So dangerous have many roads become in the past twenty years that driving children to schools well within a comfortable walking distance for them has become a major parental chore. And while great-grandfather's pony ran on the renewable energy source under the trees in the orchard and pulled a trap made in the market town, the cars we use instead are entirely the products of the global economy to which they tie us by their constant need for national currency to buy, insure, tax, repair and fuel them. Is it entirely accidental that car ownership is forbidden for the Amish whose prosperous, socially-cohesive communities are perhaps the best example of self-reliant communities in the industrialised world?

Any community moving towards greater self-reliance cannot therefore avoid looking for ways to enable its members to live satisfactorily while running fewer cars. This means much more than maintaining or developing public transport. It means working closer to home. It means providing local delivery services, keeping the local shop open and putting the travelling shop back on the road. It means car owners giving lifts to neighbours on a regular basis and, before they leave on a long journey, checking with agencies like those in Germany which enable people going in the same direction to travel along too. It means making the roads safe for pedestrians and cyclists and establishing community car pools.

The German lift-arranging agencies advertise under M (for mitfahrzentrale, literally 'with travel centre') in the classified section of the telephone directory and three or four are normally listed in a sizeable town. A driver planning a journey rings one of them three or four days beforehand and gives his or her name, address, telephone number, the

registration number of the car, the destination, the time and date of departure and the number of people they are happy to take. Drivers pay no fee to the agency, which enters all this information into its computer. People looking for lifts then telephone in to see what is available and if someone is going their way, they have to call at the agency office to pay a fee, which is generally between 5 and 15DM depending on the distance, before they are the driver's phone number.

"It's much safer than hitch-hiking" says Sophie Wolf who has used the system. "The agency gives you the registration number of the car and advises you that if someone comes to the meeting place in a different vehicle you should not go. If there is any doubt, you can ask to see the driver's identity card."

The agencies' rules stipulate that drivers must have adequate insurance and be prepared to drop their passengers off at a bus stop or train station so that they can continue their journey. Passengers pay the driver something for their lift - the amount is left to be negotiated between them up to a maximum set by the agency for the distance covered. This is generally about twice the fee paid to the agency. "All the agencies' computers are linked" Wolf says, "so if I get a lift from Düsseldorf to Berlin, I may find myself travelling with a driver returning home there who registered with a Berlin agency before he left."

The only long-distance lift-sharing agency in Britain is based in Newcastle upon Tyne . It was set up as Travelshare by a music graduate, Lindsay Gill, in March 1993 and later merged with a slightly older London agency, Freewheelers, and took its name <sup>39</sup>. "We've got 16,000 members, roughly a quarter of whom are drivers" Gill told me at the end of 1995. "We've had a lot of press publicity and membership is growing rapidly. There's a lot more interest in the idea than there was when I started."

A year's subscription for both drivers and passengers costs £8 and passengers pay £2 for the telephone number of a driver going their way so that they can arrange a pick-up point and departure time. Security is ensured because members are issued with identity cards and the passenger is told the make, colour and registration number of the car which will pick them up. Same-sex lifts can be arranged. The agency suggests that passengers each pay 3.5p a mile towards the cost of the car's fuel. Gill is in no doubt that it is better for Britain to have single national agency is better than a German-style network of local ones because it keeps down overheads. "Their computers are linked, so the Germans essentially have a single agency with a lot of outlets which the users have to pay to support," she says.

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*2002 Update on Freewheelers by Caroline Whyte*

Freewheelers is now free to use, and has become a fully Internet-based service with around 3000 members. The service is run entirely by volunteers, but according to Daniel Harris, doesn't demand much time or energy to operate because "the website is totally automated". When I asked him if he thought there was more awareness than there used to be about the need for car-pooling, he answered "A little but not enough. I think the biggest indicator is walking down a residential street

at any time of day on any day of the year you'll find the street crammed full of cars. So in aggregate there's always a street load of cars not being used and that's a despicable waste of resources". Freewheeler's future plans include going multilingual.

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#### PANEL: CAR POOLS CUT MOTORING COSTS AND ENERGY USE

Cars are a problem for city dwellers. It can be hard to find anywhere close to home to park them safely for long periods and public transport is often more convenient for journeys to the office or shops because of parking problems at the other end. But for trips to the country and friends out of town, or for moving heavy items, it's nice to have one around.

Towards the end of the 1980s, the three Petersen brothers living in Berlin decided that it was silly for each of them to have his own vehicle and began to share a common car. Friends thought the same way too and, after a few months, seven people were sharing two vehicles. In 1989, the brothers decided that they had better draw up some more definite rules about the way the costs were to be shared and set up a company, Stattauto, to handle what was becoming a booming business. (Statt is a wordplay on Stadt, the German for town, and Statt, which means instead of.) By 1995, their firm had 2,600 subscribers and had inspired or helped similar operations get established in over three hundred German, Dutch, Belgian, Swiss and Austrian cities and towns 47. There is at least one Dorf (village) system too, DORF-mobil Bad Boll, which draws its members from a rural area in Baden Württemberg.

Stattauto works as follows: a new subscriber pays a 800DM deposit, which is refundable when he or she leaves, and a 200DM joining fee, which is not. In exchange they are given a key which will open the safe at all 26 'stations' around Berlin where the firm's cars are kept. Then, when they need a vehicle, they telephone a special number and say what type they want, at what time, for how long, and the station at which they wish to collect it. The number they ring is in fact a dedicated line to a big taxi company office, which has dispatchers working around the clock, every day of the year. A dispatcher takes the call, checks on Stattauto's computer that a vehicle is available, and, if it is, makes the booking on the spot.

"There are between three and five vehicles at each station," says Bertolt Klessmann, chairman of the association representing Stattauto's subscribers. "If all those at my nearest station are booked for the time I want, I ask the operator to check availability at the next nearest station. If you have a planned life and know three or four days before when you are going to need a vehicle, the system works well. But if you ring up at 10.30 on a Saturday morning wanting a car at eleven o'clock, one might be hard to find. Weekdays would be much easier." The taxi company handles the booking system under contract.

When subscribers arrive at a station they insert a personal Stattauto magnetic card into a reader which records their name and the time and allows them to open a door giving access to the safe. They open the safe with their key, take the keys to the car they have booked and drive away.

"The recorder is in case the car is stolen or there is an accident. The company can find out whose card opened the safe and when," Klessmann explains.

The costs of using Stattauto vehicles are low. "There's an hourly charge of between 2 and 6DM depending on the type of vehicle. The most common charge would be three or four," Klessmann says. "There is also a charge for each kilometre of 27 or 28 pfennigs which covers everything, insurance, taxes, repairs, engine oil and fuel. The only other charge is a monthly fee of 10DM which covers the management costs. The rule is that subscribers should not return a vehicle with the fuel tank less than half full. They have to fill it up and the receipt for whatever they pay is set against the rental charges. The only exception is when subscribers are going on a trip of over

500km. In this case they pay 17 or 18 pfennigs a kilometre and buy their own fuel. This makes sense because their fuel consumption can vary quite a lot according to how they drive."

Subscribers return the cars to the station from which they borrowed them ("The company is trying to work out how it could handle one-way trips," Klessmann says) and are responsible for seeing that they are left in a clean and tidy condition although an 'auto-chef' - perhaps a student or a retired person - lives close to each station and gets a small allowance to make occasional checks on the cars. Subscribers pay monthly. They fill out a form at the station each time they return a vehicle recording the hours they have used it and the number of kilometres travelled. If the bill is not paid on time, the company's computer declines to open the door to the key safe when they present their magnetic card. Klessmann says that the only serious problem with the system is that some subscribers are late returning their vehicles and keep other subscribers waiting.

Experience has taught Stattauto how many cars it needs to have available at any time. "Most of the cars are hired by subscribers to use during their free time, unlike car hire firms which are busiest during working hours. We find that we need one car for every 23 subscribers in winter and one for eleven or twelve in the summer. There is a strong relationship between day length and car use" Klessmann says. As a result, the company is forced to buy new vehicles in the spring and sell the older ones in the autumn.

There is another strong relationship between the length of time someone has belonged to Stattauto and the amount they drive. "Their first year, they drive quite a lot," Klessmann says. "The second year, they will drive half the amount. And the third year, half that again." This means one of the Petersens' aims in starting the company is being fulfilled and cars are only being used when they are the best form of transport. "When someone owns a vehicle, the main costs are fixed and they use it for the smallest things like going two or three hundred metres to a shop. But if you are paying only according to how much you use it, you ask yourself each time you plan a journey if using some other form of transport might make more sense," Klessmann continues. But it also means commercial problems for Stattauto: "If we want to stay our present size we have to keep increasing the number of subscribers."

Most of Europe's car sharing groups belong to European Car Sharing (ECS) which allows their subscribers to use another club's fleet when they are away from home. "Car sharing is one component of an environmentally compatible traffic strategy," an ECS leaflet says. "By combining bus, rail, taxi and car sharing, users can choose the most convenient, inexpensive and environmentally acceptable means of transport. Every car sharing vehicle means four cars less on the road and an average saving of 28,000 car-kilometres per annum. The energy used for the mobility of a former car owner can be reduced by car sharing by almost 50%".

European Car Sharing, Max-Brauer Allee 218, D-22769 Hamburg, Germany. Tel. +49 40 28054124, fax +49 40 28054125, email [office@ecs.CarSharing.org](mailto:office@ecs.CarSharing.org).

Information about DORF-mobil Bad Boll e.V. can be obtained from Jobst Kraus, Pappelweg 12, 7325 Bad Boll. Tel. +49 71 64 37 42, email [jobst.kraus@ev.akademie-boll.de](mailto:jobst.kraus@ev.akademie-boll.de)

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Lift agencies and car-pools are only suited to longer journeys and for the 75% of journeys which are under five miles, the bike is probably the best solution. The European city which has been most successful in getting people to use bicycles instead of cars is Groningen in the Netherlands where, as a result of action by the local council, 50% of journeys are now made on two wheels 40. "We are trying to find a balance between accessibility and liveability by giving priority to the bicycle and public transport" Marcel Bloemkolk of the city's department of town planning, traffic and economic affairs told me. "We try to keep the use of cars to a minimum". This is no easy task for an urban area

with 170,000 inhabitants which serves as the regional centre for the whole northern Netherlands and to which over 30,000 people travel by car to work each day.

The first steps were taken in 1979 when the council simply closed certain streets to traffic other than delivery vehicles, buses and bikes after what Bloemkolk admits was inadequate consultation. "It wasn't the way we would do it nowadays," he says. The closures meant that the inner city, which is about a kilometre in diameter, was divided into four sectors and cars could not cross from one sector to another except by going out on to the inner ring road. The result was an outcry from car-owners and retailers. "The matter became heavily politicised which was not at all helpful and the retailers made things worse for themselves by putting advertisements in the newspapers suggesting that the city was surrounded by barbed wire. That must have cost them a lot of business," Bloemkolk says.

"It was horrible at first" Wilma Naaijer told me in her father's fabric shop, 't Binnehuis. "People got lost in the new one-way system and they could only park for two hours. We lost business and shops in outlying towns advertised saying that they had no parking problems."

On the other hand, there were improvements. Several streets were pedestrianised or had their road widths narrowed and the Great Market Place, which had effectively been little more than a traffic roundabout, became a public space once more. "Under the 1979 plan public transport including taxis, cyclists and pedestrians could move freely between the sectors," Bloemkolk says. "Retailers' income dropped for a year or two until people got used to the new system. Some shops had to move, but that would have happened anyway in some cases."

In Groningen today the council is eliminating the last parking spaces in the central area ("There are very few but people drive around looking for them" Bloemkolk says). Instead, car owners can pay a guilder (40p) per half-hour to park beyond the inner ring road and walk into the central area, or they park without charge on the outer ring and take the free and frequent bus service to the centre. The money collected from people parking close to the inner ring covers the operating costs of the buses for those who park further out.

Since almost everyone now walks, cycles or takes a bus into the central area, the planners have much more freedom about where retail developments within it should be. "The shops were too concentrated before. They all wanted to be close to each other. Now we can offer them good sites on attractive streets which previously had a messy and worn-out appearance. You can do a lot more with a street if it has no cars," Bloemkolk says. Big stores like IKEA, which feel they need to be close to a carpark so that customers can get bulky purchases away are sited on the inner ring and allowed to have their own small underground car parks for which their customers must pay.

While restricting the car has certainly cut the number of road accidents and made Groningen a more attractive place, it is hard to say how much energy it has saved. True,



council surveys show that car traffic is about 15% lower and cycle usage 10-15% higher than in cities of comparable size in the Netherlands, which, in comparison with anywhere in Britain and Ireland, look after their cyclists well. However, the strategy of both the council and the retailers, who now work closely together, is to use Groningen's new-found attractiveness to attract extra shoppers to travel there, mostly by car, from further and further away. "The shopkeepers want more pedestrianised streets and we think there is room for 20-40,000 sq metres more retailing space on top of the 80-90,000 sq. metres we have at present," Bloemkolk told me "We have to keep Groningen competitive. We're getting people from Germany now especially when the shops there are closed on Saturday afternoons."

Though its motives might be mixed, Groningen has a lot to teach other places about how to persuade people to cycle and to use public transport instead of their cars<sup>41</sup>. "If you want to stimulate the use of bicycles, biking must be fast, comfortable and safe" says Bloemkolk, who is a member of the Dutch Cyclists' Union. "We have therefore created a large number of special facilities for bicycles. The most important is a cohesive network of cycle routes beside main roads and along roads with little motor traffic. It is very important that the network is as fine-meshed as possible to cut distances and travelling time, so we've built bridges and cut-throughs for pedestrians and cyclists only. Cyclists can use almost all one-way streets in both directions; at traffic lights we give them waiting spaces in front of cars and allow them to turn right against a red light. Bicycle racks have been erected in the city centre and at bus and rail stations and guarded bicycle shelters have been opened, too, some with lockers, toilets and phones. We've also started a campaign against bicycle theft."

On public transport, Bloemkolk says that the council's planning policy has been to site buildings where a lot of people will work near existing bus routes and the railway station. It has also tried to integrate the different forms of public transport: "They must form one network from the train for long distances to local buses and taxis for transport in the city, and there must be as few delays as possible. We have special bus lanes and traffic lights which can be changed by a transmitter in the bus" he says. Buses passing through the central area, however, are restricted to 15km per hour to be more pedestrian friendly. The plan is to replace the present diesel-powered vehicles on these routes with hybrid vehicles which will run on LPG most of the time but on batteries in the city centre to cut noise and emissions there.

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*2002 update by Caroline Whyte*

The plan to close the entire central area of Groningen to parking has had to be abandoned because it would have entailed building a car park underneath a public square. The square contains an old church tower, and some citizens were concerned that the tower might be damaged in the course of the car park's construction, so they voted against the project.

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Another city which has tried to promote the bicycle with great success is Davis in California, where roughly a quarter of all journeys are made on two wheels. (The best British city is York, which claims 10%). The policy dates back to the mid-1960s when

the University of California campus there increased its student numbers sharply with the result that many more bikes were being used on streets designed primarily for cars. In the city council elections in 1966, cycleways became the major issue and a majority of candidates who supported their construction were elected. Now, the city, which has a population of 50,000, a third of them students, has 37 miles of bike lanes running beside roads and 29 miles of stand-alone bike paths. It also has an ambitious ten-year \$21m. programme to build more.

But the pleasant tree-shaded 'down-town' area of Davis is unhealthily quiet and the merchants have plenty of time to express their concern. The staff in the city planning office are worried too: their surveys show that, while the number of bike journeys is not falling, it is not growing either although the city's population is expanding each year. As a result, cycling contributes a smaller and smaller percentage of all journeys made. The problem is that Winger's Department Store in the downtown area closed in 1986 and a major shopping mall opened outside the city boundary 18 months later. Sales tax receipts in Davis, which are now a third or a half of those in comparable towns, slumped as people started shopping outside its borders. "The reason the number of cycle journeys has not increased is that people need cars to get to the Mall," a planning officer told me.

Marcel Bloemkolk of Groningen sympathised when I told him the story. "It's important to keep the central area compact. Groningen wouldn't want a megastore on the edge of town" he said.

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#### PANEL: CAN HORSE TRANSPORT MAKE A COME-BACK?

Unlike trucks, horses make their own replacements, run on locally-grown fuel and only need simple accessories produced, often from local materials, in unsophisticated workshops, to make them fully effective. And, if using them involves more work than their fossil-powered equivalent, that is a benefit rather than a disadvantage for people anxious to create incomes for each other rather than for financiers and factory workers long distances away.

For deliveries in towns or within a limited area, a two-horse dray is as cost efficient as a four-tonne van, or so close to being so as makes no difference, according to the most recent study, which was prepared in 1985 for the Shire Horse Society by an economist, Ian Webster, whose data was based on the experience on three of the dozen or so breweries which still keep horses for local distribution.<sup>42</sup> Obviously, the actual figures he used are rather old now, but a study today would produce broadly the same result.

Webster assumed that both the van and the dray would travel twelve miles in the course of a working day and distribute eight tonnes of goods on each of 240 days a year. The capital cost of the horses, (£1,100 each) their tack and the dray (£2,600) was less than half that of the van (£9,500), and so cost less in interest. They also cost less in depreciation - the horses were reckoned to have a working life of fourteen years and were written off over that period while the dray, which, as Webster pointed out, could

easily serve for 50 years, was depreciated over 25. This gave a total depreciation figure of £274, compared with £1,902 for the van. Maintenance on the dray was much lower than on the van - £331 compared with £1,727 - and its insurance was less too.

The only advantages that could be claimed for the van were that it was cheaper to garage and to fuel, and cost less for labour, because, unlike the horses, it did not have to be fed, watered and mucked-out at weekends. The £1,400 difference in labour costs that this entailed meant that the dray cost £22 a year more to run than the van over the year.

Webster's actual figures were:

	Two-horse dray	Motor van
1. Stabling or garage	1,445	863
2. Insurance	160	220
3. Road tax	-	130
4. Wages	9,369	7,969
5. Depreciation	274	1,902
6. Interest	264	809
7. Horsekeep	2,244	-
8. Sundries	212	-
9. Fuel and oil	-	487
10. Tyres	-	170
11. Maintenance	331	1,727
TOTALS	14,299	14,277

If payments numbered 2, 3, 5, 6, 9, 10 and 11 go largely to recipients outside the community in exchange for the goods and services they supply, the dray is a very much more self-reliant method of transport since only 5.4% of the costs associated with it leave the area compared with 38% for the van.

## 2. SAVINGS IN THE HOME

Davis has, however, been much more successful in saving energy in the most important area under local control - the 27% share of total energy consumption used in the home. Its technique is to ensure that all new houses are built to the most stringent energy-saving standards that California state law allows it to impose. This has not meant that houses built by developers are more expensive than they would otherwise have been: in any town, the price of a new house is determined by what the market will bear rather than the cost of construction and, if a developer has to spend an additional \$5,000 to reach a building code's standards, that is \$5,000 less he can afford to pay for the site. The landowner loses while the householder gains from lower heating, lighting and cooling bills and a higher resale value: the first houses to be built to the new standards now fetch 12% more than similar conventional houses of the same age<sup>43</sup>.

So enthusiastic is Davis about the results it is getting from demanding high building standards that it publishes a monthly newsletter, *The Biketown Builder*, to keep contractors and others up to date with the latest regulations. Inspections of houses under construction are frequent and stringent and the city has its planning officers devote a lot of their time to talking to architects and builders about possible improvements to their plans not just for the houses themselves but the way they are laid out.

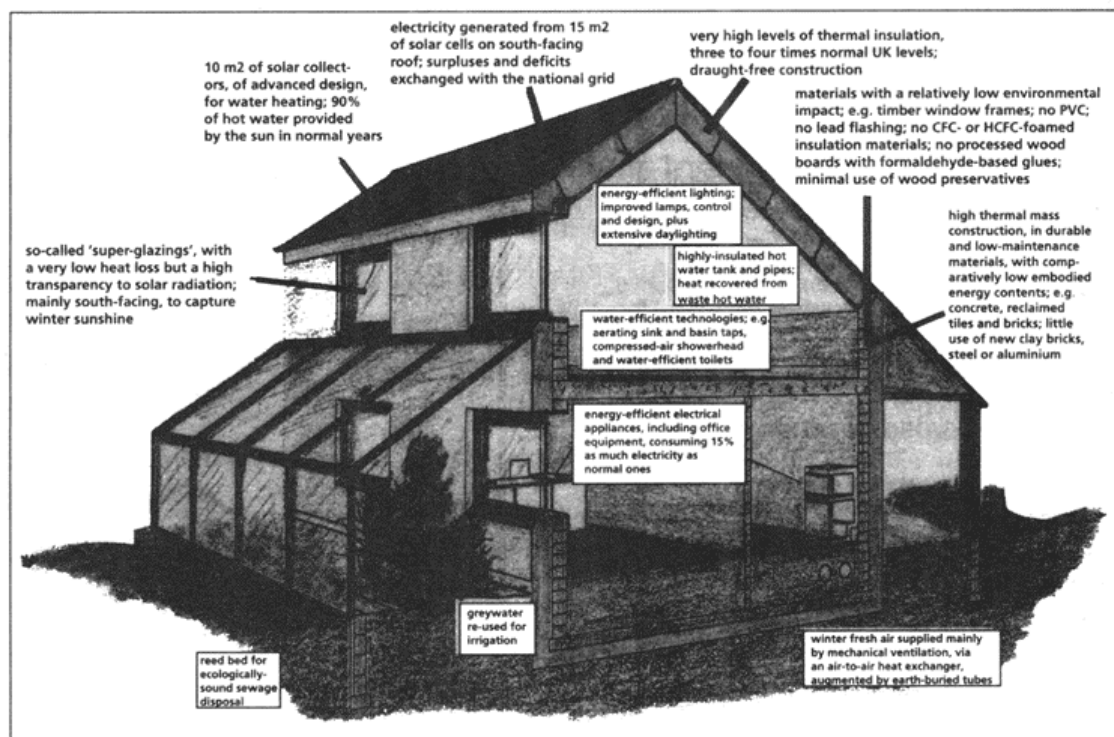
Energy efficiency should be designed into a sub-division at the start rather than tacked on afterwards, a policy statement issued by Davis City Council stresses, before listing the features its staff will be looking for in planning applications. These include placing the buildings to take heat from the winter sun ('building envelopes should be designed to provide solar access to the south facing glazing of buildings... on the winter design day of December 21 when the angle of the sun is 20.7 degrees') and to use the prevailing breezes in summer to keep cool. As a result, a minimum of 80% of detached houses on a subdivision have to have their long axes running within 22.5 degrees of east-west. Planting plans have to be prepared which shade parking and play areas as well as the houses themselves and paved areas generally have to be minimised to reduce heat gain. Another stipulation is that a convenient system of paths be provided for pedestrians and cyclists.<sup>44</sup>

If similar requirements had been adopted in Herefordshire, it would have been much easier for David Olivier of Energy Advisory Associates to find a site for the highly energy-efficient demonstration house he started planning in 1990. Although the house had several of the features of the traditional cottages of the area - a long, thin shape, facing south, with a low slate roof and small windows at the rear - three potential sites had to be dropped when the district councils responsible rejected it entirely. On the fourth site, the local council wanted the house turned round to face the road, which happened to run to the north. A year's negotiations were required before the councillors changed their minds. Construction should begin in 1996.

The key feature of the house is that it will require only a tenth of the energy used to provide heating, lighting and hot water in a British house built to current standards. Moreover, as much of the energy the house does require will come from the sun - its south-facing roof it will have 10 sq. metres of solar collector for hot water and 15 sq. metres of photovoltaic cells for electricity which will be banked in the grid - its fossil energy consumption should be 3% of that of a normal home. This is made possible because it has about four times the level of thermal insulation built into a normal new house, plus very much better windows which will capture more heat from the sun each year than they lose. No British manufacturer was interested in making these because they could not see a market developing for them, so the sealed glazing units will be imported from Canada and be mounted in locally-grown timber frames.

Some of the house will be local stone and concrete blocks will be used for the load-bearing walls as these take only a third of the energy used to make bricks. PVC, lead, insulation foamed with HCFCs and glues made with formaldehyde will be avoided for

environmental reasons. "The amount of embodied energy in the materials for the house will be slightly less than for a normal dwelling," Olivier says, a fact which leads him to hope that building costs for similar houses will be very little more than for conventional ones once their insulation levels and energy systems became standard. "There's negligible experience of building houses like this in Britain but taking the Swiss and German experience is a guide, the extra cost should not be above 5%. Even in this country, I know buildings which have gone halfway towards the performance we are aiming for here with no extra cost," he says. One of these is a 1992 house in Charlbury, in Oxfordshire, which has cut its total energy consumption, including that for lighting, cooking and appliances, by 70%. Another is a London house which has 8" (200mm) of insulation in the roof, 6.5" (165mm) in the cavities and 10" (250mm) under the floor.



*David Olivier's energy-saving house, which ran into planning control problems.*

Professor Owen Lewis, the director of the Energy Research Group at the School of Architecture, University College, Dublin, agrees that the extra cost of a really energy-efficient house should be very modest. "It is greatly exaggerated by the building industry. I would say that 5% is the upper limit since, once you get the rate of heat loss down to a low level, you can make substantial savings because you do not have to instal boilers, chimneys and central heating systems. [Olivier's house has no central heating system or wood-burning stove. Cooking will be with either bottled or bio gas]. At some point, however, you run into diminishing returns and it's not worth spending more." In part, this is because the occupants of the house and their lights and appliances will release enough heat to cover the remaining loss, much of which will be through the ventilation system as a result of the necessity to change the air continually.

In any case, it might be cheaper to capture replacement energy from the sun rather than to spend more on extra insulation. Susan Roal's house in Oxford is the first in Britain to generate more electricity from the 48 solar panels on its roof than its occupants will use in the course of a year. Like Olivier's, it uses the grid as a battery, feeding the surplus into it when the sun is strong and drawing out at night. It is one of the developments which makes Lewis excited about the progress being made with photovoltaics. "We're working with a Spanish firm which is building cells into its curtain-walling which costs no more than any other good quality cladding. It comes in six metre high units which are fixed vertically. People tell us it is inefficient to place them this way because they need to be angled to capture the maximum amount of sun but we tell them that, since the electricity is essentially free, the level of efficiency doesn't bother us."

Given the minimal extra cost, could a British or Irish council adopt Davis-style policies and demand much higher levels of energy efficiency than those set out in the national building regulations from the planning applications coming before it? "Yes, if the climate of opinion was right," says a friend who is a senior planning officer. "In fact, a group of planners in Britain is already working in that direction".<sup>45</sup>

But building new houses to much higher standards can only be part of the solution as at current rates of demolition and new construction, over half of the UK housing stock will still date from before 1965 in thirty years' time and thus have been built before it was necessary to meet any legal thermal insulation standards at all<sup>46</sup>. The average energy rating of British houses is between 40 and 50 on the government's misleading Standard Assessment Procedure (SAP) scale which ranges from 1 to a maximum of 100, 1 being poor and 100 being the most energy efficient. You might think that a house with a rating of one would lose all the heat put into it almost immediately while one with a rating of 100 would retain it indefinitely but since the laws of thermodynamics make it quite impossible to achieve a perfect level of insulation, any scale with an upper limit has to be misconceived. "My house is off the scale - it comes out at about 250," David Olivier says. "Houses built under current Building Regulations are between 60 and 70 but that's based on how they are on paper, not how they actually perform when they are built."

#### Energy used by a typical British household

HEATING (gas)	45%
HOT WATER (gas)	16%
LIGHTING (electric)	1%
TV ETC (electric)	0.5%
COOKING (electric)	3%
DISHWASHER (electric)	2%
FRIDGE/ FREEZER (electric)	2%
WASHING-MACHINE/ DRYER (electric)	0.5%
CAR	30%

How, then, can a community's existing houses be brought up to a reasonable level of energy efficiency? Because it costs the municipally-owned electricity companies of Denmark less to show someone how to save a unit of electricity than they would have to pay in interest to generate that unit if they had to build a new power station, they are generally reckoned to have had more experience than anyone else in Europe in getting their customers to cut power demand. According to AKF, the Danish Institute of Local Government Studies<sup>48</sup>, the main obstacle preventing households cutting electricity consumption is ignorance. In an experiment, three groups of households, none of which used electricity for room heating, were sent literature on ways they could save power and offered low-cost loans if they wanted to adopt any of the measures. They were also given a leaflet on how to read their electricity meters. As a result of these simple measures, Group One cut its the electricity demand by 7.4%. Group Two had the price of its electricity increased as well and its demand dropped by 8.3%. Group Three received the same treatment as group two except that its members were also visited by consultants. It cut its energy use by 10%. These savings were achieved largely because people changed their habits as only a limited number of light bulbs and appliances were replaced with more efficient types.<sup>49</sup>

Over a longer period, as more equipment became due for renewal, much deeper cuts would have been possible, as has been demonstrated by the Billsavers Project run by the Lothian and Edinburgh Environmental Partnership, LEEP. The project studied electricity use in 100 low-income households for a full year before supplying them with compact fluorescent light (CFL) bulbs and helping them get their appliances replaced or repaired. "Significant savings are being achieved from installing CFLs, the most extreme example being overall savings/reductions of 70%," writes Robert Barnham, the project development officer. "[Also], there are already cases where the replacement of an appliances where the replacement of an appliance is expected to result in first-year running cost savings matching the replacement costs. The most significant savings are through replacing fridges and fridge-freezers; though low rated in terms of actual wattage, they are on continuously and in certain cases older models are using up to ten times the energy of an efficient replacement model."<sup>50</sup> In view of these findings, LEEP is looking at the potential electricity savings in a hundred middle- and upper-class households and has a scheme under which families can buy CFL bulbs from it with loans from local credit unions. "Development of an energy services company may be a longer-term opportunity incorporating advice, soft financing, retailing and contracting," Barnham writes.

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2002 Update on LEEP by Simon Lee, LEEP's director

The most significant outcome of the Billsavers project was Fridgesavers, which LEEP ran on behalf of UK electricity suppliers from 1997 to 2002. Billsavers was able to develop a standard set of questions which low income householders completed about their fridge or fridgefreezer. Answers to the questions were scored and where a certain score was attained the householder was eligible for a new appliance at a cost greatly subsidised by their power company. Between 1997 and 2002 Fridgesavers delivered some 180,000

appliances to low income households saving them an estimated £18 million in the purchase price and around £10 million per annum in running costs.

The Billsavers project was one of a series of energy efficiency promotions run by LEEP. LEEP continues to provide a range of energy advice services and related projects promoting energy efficiency grants to different sectors. One such project was ReWarm which addressed the private rented sector, long seen as a difficult sector to encourage improvements in energy efficiency. ReWarm offered landlords a mix of grants and interest free loans to install efficient heating systems and insulation. The grant for heating systems represented around 25-50% of the overall cost of installation. The scheme was very successful despite the received wisdom which was that landlords do not care about the energy efficiency of their rented properties. ReWarm proved that very often they do – but that they do not prioritise it above other responsibilities (most landlords ran maybe one or two properties which they may have inherited for example, so their renting business was very much a side line). These are part of a wider portfolio of activity addressing recycling and transport issues, all of which relate to the overall aim of LEEP to promote environmentally sustainable economic development in the area.

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The Bristol Energy Centre (now the Centre for Sustainable Energy), which was set up as an offshoot of the Centre for Alternative Technology at Machynlleth in Wales to show what alternative technologies could do in an urban context, has already set up a company which aims to reduce not just electricity use but a household's total energy consumption. The Centre believes that the main obstacles to a general improvement in domestic energy standards are that many householders don't know what to do and that, even if they did, they would find it too much hassle to arrange for a contractor to do the work, particularly as they do not trust contractors anyway. On top of that, householders may not have the ready cash to pay for whatever needs to be done. To tackle these problems, the Centre has formed The Energy Club in partnership with a regional electricity company, Northern Electric, and Lothbury Services Ltd, a firm of financial consultants, and launched a trial project in two communities outside Bristol, Yate and Nailsea, in October 1995. In the test, owner-occupiers were subjected to 'an intensive marketing approach' backed by a letter of support from the local council, urging them to explore ways of cutting their energy bills by telephoning the Club. "With our computer software we can do quite a lot by asking people questions over the phone," a Club spokesman told me. "We give them an estimate of the sort of savings they are likely to make, which are usually around £200 a year or 20-30% of their energy bills, and some idea of how much it is likely to cost. If they are still interested, we carry out a survey and organise contractors to do the work for them. If necessary, we can arrange the finance through a personal loan over five years from a high-street bank. The current rate of interest is 14.6% and the savings they make should be enough to cover their repayments."<sup>51</sup>

The Club is nothing if not ambitious and expects 'to have delivered total energy packages to more than 2.5 million households' after five years' full operation, saving members 'some £500m. per year' and cutting CO<sub>2</sub> emissions by some 1.4 million tonnes of carbon equivalent annually.<sup>52</sup> "We can bring houses up to 60 or 70 on the SAP scale," the



spokesman told me. "Just how many houses we do will depend on how many other people see the commercial opportunity and come in. No government grants are involved." When I pointed out that cheaper loans would be available from a credit union and that this would keep the interest payments in the community, he reflected the widespread attitude in Britain that CUs are only for the poor and said that bank loans were 'more appropriate to the sector [that is, owner-occupiers] in which they were operating.' However, they were looking at CUs as a possible source of loans for people living in social housing when they developed schemes for them.

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*2002 update on the Energy Club by Simon Roberts, Chief Executive of the Centre for Sustainable Energy*

Like many other attempts funded by the Energy Saving Trust to develop an energy services offering for the domestic sector, the Energy Club was not financially sustainable. Although by early 1997 it had reached 1 million households and given energy advice to some 18% of them, the households did very little to take up its suggestions. So it was gone by mid-1997. A report for the Energy Saving Trust on why the Energy Club didn't work identified two principle problems - (a) that payment for the energy saving work was not fully integrated with fuel billing and so remained part of a household's discretionary expenditure, and (b) the opportunity to save the price of half a pint of beer a week from energy efficiency improvements wasn't enticing enough for householders to invest spare cash or take out a loan - however cheap that loan might be.

We are about to investigate a different approach to addressing this problem in a particular part of Bristol but it is too early to provide details on that (having learnt from puffing our chests out last time!). Details of our recent projects to develop community-scale renewable energy applications can be found at <http://www.cse.org.uk/cgi-bin/projects.cgi?community&recent>. See Pitching for Solar, for example.

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Much higher standards of energy efficiency can be achieved in existing houses than the Energy Club expects to make. In Schiedam in the Netherlands, for example, the local council has super-insulated an estate of 448 flats built in 1956 and in need of major renovation. It externally insulated the external walls by covering them with six inches (150mm) of expanded polystyrene, followed by metal mesh and a concrete rendering. (This is the most efficient way to insulate any existing building - far better and easier than lining the walls with insulation inside - and visitors to the former East Germany can scarcely have failed to notice how extensively the technique is being used there to improve the housing stock.) Three additional inches (70mm) of insulation were put in the roofs, existing balconies were glazed and the windows replaced with double-glazed, argon-filled units with a heat-reflecting silver oxide coating, fitted in timber frames. New space heating systems were also installed. "These measures brought the flats up to the standard of the best new Dutch buildings and they use 90% less energy than the average for the Dutch housing stock," David Olivier told me<sup>53</sup>.

The latest British estimate is that, if every household adopted all the energy-saving techniques open to it including fitting full double-glazing, putting six inches of glass-fibre in the loft, draught-proofing, insulating the walls, and moving to the most efficient light bulbs and domestic appliances, total domestic energy use would fall by almost 40% even if people did not take all their savings in the form of lower fuel bills but allowed themselves the luxury of warmer rooms as well.<sup>54</sup> Moreover, if householders did the installation work themselves, they would get at least a 15% return on most of their spending. Even if they had to employ contractors, the majority of their money would give an 8% or better return.

The obstacles to energy-saving are therefore not therefore technical or financial. They are essentially social - and that is where community attitudes and actions come in.

Further Information for Chapter 5 (last updated September 2002):

#### 1. General:

For a good all-round guide to energy issues, try *The Future of Energy Use* by Robert Hill, Phil O'Keefe and Colin Snape (Earthscan, London, 1995). Magazines are the best way keep up with what is happening in the area. *Renew*, published by the Network for Alternative Technology and Technology Assessment (NATTA) at the Open University covers renewable energy alone, in a lively manner and some depth. For anyone seriously interested in community energy, I regard a subscription (£15 a year waged, £10 unwaged, from NATTA, c/o Energy and Environment Research Unit, Faculty of Technology, The Open University, Milton Keynes, Bucks, MK7 6AA) as essential. An edited text-only version of *Renew* is available online .

The World Renewable Energy Network is a UK-based non-profit with an international scope, and with links to many renewable energy organisations.

#### 2. Renewable energy sources:

The book to buy or borrow is *Renewable Energy: Sources for Fuels and Electricity*, edited by Johansson, Kelly, Reddy and Williams (Island Press, Washington DC, 1993. Distributed in the UK by Earthscan). Information about recent projects and reports on renewable energy in Britain and the EU can be found at the Energy and Environment Research Programme's website. This programme is organised by the UK Department of Trade and Industry in partnership with ETSU. ETSU's enquiries bureau can be contacted at +44 1235 436747, fax +44 891 616323, e-mail [etsuenq@eat.co.uk](mailto:etsuenq@eat.co.uk).

Sustainable Energy Ireland, formerly the Irish Energy Centre, also has a wealth of information available free of charge. Its address is SEI, Glasnevin, Dublin 9, Ireland, Tel +353 1 8082286, fax +353 1 8372848, e-mail [tom.halpin@sei.ie](mailto:tom.halpin@sei.ie)

A vast amount of information on renewable energy sources is available through the Internet. A good place to start is Solstice, the online information server for the US Center for Renewable Energy and Sustainable Technology (CREST). Information about

discussion groups hosted by CREST can be found here. The UK Solar Energy Society's website contains a database of links to many renewable energy websites at SOLEIL(Sustainable On-Line Energy Information Listing).

## CONTACT ADDRESSES

British Photovoltaic Association, c/o National Energy Centre, Davy Avenue, Knowlhill, Milton Keynes MK5 8NG, UK. Tel. +44 01918 442291; fax +44870 0529193; e-mail enquiries@pv-uk.org.uk.

The British Wind Energy Association, Renewable Energy House, 1 Aztec Row, Berners Road, London, N1 0PW, UK. Tel +44 20 7689 1960; fax +44 20 7689 1969; e-mail info@bwea.com.

Irish Wind Energy Association, Arigna, Co. Roscommon; tel +353 78 46072; e-mail office@iwea.com

Windpower Monthly magazine is international in scope. Subscriptions are US\$140 for one year and can be made online or by contacting the magazine at PO Box 100, DK 1840 Knebel, Denmark; fax +4586 365826, e-mail mail@windpower-monthly.com.

Methan O' Gen is an Irish company that makes biogas digester parts. Its address is Tooracurragh, Ballymacarbry, Co. Waterford, Ireland; tel +353 1588 650585. The Irish Bioenergy Association is located at Education Centre, Church St., Cahir, Co. Tipperary. Ireland. Tel+353 52 43090 ; fax: +353 52 43012; Email tippenergy@eircom.net.

Les Gornall's business is Practically Green Environmental Services, Solar House, Magherafelt ,Co. Londonderry, BT45 6HW, Northern Ireland. Tel./fax +44 1648 32615; e-mail les.gornall@dial.pipex.com. He supplies Ajax engines, which run on untreated bio-gas.

## ENERGY SAVING

David Olivier, Energy Advisory Associates, Moore Cottages, Bircher, Leominster, Herefordshire, HR6 OAX; tel +44 1568 780868; e-mail enquiries@e-a-a.co.uk

Bill Quigley is at the National Irish Centre for Energy Rating Ltd., 3 Bushfield Place, Dublin 4; tel +353 1 4970133. The centre carries out energy audits on properties and uses the information to provide costed proposals for saving energy.

## Notes

1 This figure is quoted by Paul Hawken in *The Ecology of Commerce* (Harper-Collins: New York 1993), citing the Rocky Mountain Institute as the source. A letter to the RMI produced a copy of its Community Energy Workbook and a compliments slip but nothing to indicate which of its studies produced this finding. However, Paul Harwood's report *A Domestic Energy Audit of Newport*, Pembrokeshire showed

that in 1996 the average household in this small town was causing an 'energy cash leakage' of £747 out of its local economy for its cooking, heating and light and that this could readily be cut by two-thirds. This sum, of course, ignored the cost of the energy required to run the community's vehicles and the value of the energy used to make the products its members bought. As roughly 27 per cent of all energy is used in the home for cooking, lighting and space-heating and the rest is bought by households either directly at the petrol pump or indirectly through their purchases and taxes, this would mean that each household spent £2700 on energy a year in 1996. As the average after-tax household income that year was £192.32 a week or £10,000 a year, this makes the figure of a fifth look reasonable.

2 *BP Statistical Review of World Energy*, June 1993

3 A small gas field, Ballycotton, was discovered in 1990, but no more recent finds have been reported.

4 *Hatherleigh Community Renewable Energy Study* (draft final report 1995), Terence O'Rourke PLC, Everdene House, Wessex Fields, Deansleigh Road, Bournemouth BH7 7DU; tel +44 1202 421142; fax +441202 430055.

5 Available from NATTA, c/o Energy & Environment Research Unit, Faculty of Technology, Open University, Walton Hall, Milton Keynes, Buckinghamshire MK7 6AA; tel +44 1908 654638; fax (Dave Elliott) +44 1908 653052.

6 *Small-Scale Hydro-Electric Potential of Ireland* (Department of Energy, Dublin)

7 IHPA, 13 Marlborough Road, Dublin 4; tel & fax +353 1 6680043.

8 P. Fraenkel, O. Paish, V. Bokalders, A. Harvey, A. Brown, and R. Edwards, *Micro-Hydro Power: A Guide for Development Workers* (Intermediate Technology Publications: London 1991). Another guide that is particularly strong on the preliminary assessment of a site's potential is *The Development of Small-Scale Hydro-Schemes, Part 2* (Department of Energy, Dublin, n.d.)

9 Polyturbine Ltd., Unit 16, IDA Enterprise Centre, 111 Pearse Street, Dublin 2; Tel +353 1 6711209; fax +353 1 6711746. The Polyturbine can be described as a single-regulated Kaplan because the propeller blades are not adjustable when the machine is in operation as they are in the double-regulated variety. This means that it produces slightly less power from a given flow of water but at a significantly lower capital cost.

10 The Rock, South Brent, Devon TQ10 9JL; tel +44 1364 72185. The NAWPU can supply a list of consultants, manufacturers, lawyers and others who may be useful to anyone developing a water-power site in Britain. It lobbies on behalf of small hydro-electricity producers and publishes a bulletin twice a year. Membership is £20 annually.

11 Irish Wind Energy Association, Arigna, Co. Roscommon; tel +353 78 46072; e-mail office@iwea.com.

12 Her report is called *Living with Wind Farms* in Denmark and the Netherlands and is available from North Energy Associates, 2 Old Bakehouse Yard, Morpeth, Northumberland NE1 1AS; tel +44 1670 516949.

13 Hurley Staudt Associates, 63 Greenlawns, Skerries, Co. Dublin; tel +353 1 8490396.

14 The 656-page handbook covers regional wind resource assessment and the local siting of turbines and explains how to correct calculations for the effects of rough terrain etc. It is accompanied by a diskette containing wind statistics. It costs 875 Danish Kroner from the Department of Meteorology and Wind Energy, Risø National Laboratory, PO Box 49, 4000 Roskilde; tel +45 42371212; fax +45 46755619. Risø also publishes an extensive list of free research reports in English on wind energy.

- 15 The report (ref. ETSU K/FR/00082/REP) is available from ETSU, Harwell, Oxfordshire OX11 0RA; tel +44 1235 432450; fax +44 1235 432923.
- 16 *Inishowen Renewable Energy Study; Wind and Biomass in North-West Ireland* (1994), Inishowen Energy Co-op, Colpey, Muff, Co. Donegal.
- 17 L.P. Martindale, *The Potential for Straw as a Fuel in the UK* (ref NI/84), ETSU, Harwell, Oxfordshire.
- 18 See 'Straw as a Fuel: Current Developments in the UK', ETSU Technology Summary, 073, June 1991.
- 19 The paper, *Bioenergy in Denmark*, is available from Dr Boldt at the Danish Energy Agency, 11 Landermarkedet, 1119 København K; tel. +45 33926700; fax +45 33114743.
- 20 *Update on Centralised Biogas Plants*, October 1992.
- 21 Institute of Agricultural Economics, Gl. Køge Landevej 1, 2500 Valby; tel +45 36442080; fax +45 26441110.
- 22 F. Culshaw and C. Butler, *A Review of Biodiesel as a Transport Fuel* (ETSU-R-71) (HMSO: London 1992).
- 23 W. Dunne, *Liquid Fuels from Conventional Agricultural Crops* (Teagasc: Dublin 1990).
- 24 *Økobilanz Rapsöl*, available from Umweltbundesamt, Bismarckplatz, 1000 Berlin 33.
- 25 T. Thomas, *Fuel Oil Seed Rape*
- 26 'The carbon and energy burdens of energy crops', *Energy Conversion Management*, vol. 34 (1993), no. 9-11, pp.897-904.
- 27 'Express Path' Summary Report (CEC Contract no. EV5V\_CT92-0086), March 1995. The technologies are biomass use in Austria, Denmark and Greece, wind power in Denmark, and solar heating in Austria and Greece.
- 28 David Oliver, 'Continental Efficiency', *Building Services*, March 1991.
- 29 In 1993 it published a report (ETSU resource study 287) on the future prospects of the renewable energy resources in its supply area, which runs from Avon through Somerset, Devon and Cornwall to the isles of Scilly. This concluded that between 6 and 12 per cent of present electricity consumption could be met from renewable resources by the year 2000 and that nearly two-and-a-half times the present consumption could be supplied in the longer term.
- 30 Telephone interview, January 1996.
- 31 *Renew*, issues 92 and 93.
- 32 *New Scientist*, 20 August 1994.
- 33 20 New Bond Street, London W1Y 0RY; tel. +44 171 4954812.
- 34 David Lascelles, 'More than one way to go', *Financial Times*, 15 March 1995.
- 35 Antonio Estevan and Alfonso Sanz, 'Hacia la Reconversion Ecologia del Transporte en España', Centro de investigacion para la Paz, Madrid.
- 36 *Road Transport of Goods and the Effects on the Spatial Environment*, July 1993.

37 The most recent British study (September 1995), *Reforming Road Taxation*, compares the total costs of the road transport system (not just freight transport) with the tax revenue raised from it. It was commissioned by the Automobile Association from Professor David Newbery, Director of the Department of Applied Economics at the University of Cambridge. It shows that after meeting the cost of repairing the road network and servicing the capital tied up in it, vehicle fuel taxes should be three times higher than at present to cover the costs vehicle users impose on each other, the environment, and the community. This figure is likely to be a serious underestimate because of the low figures used for the contribution of the transport system to the damage likely to be done by global warming, and also for its noise and health effects.

38 Quoted by Wolfgang Zuckermann, *End of the Road* (Chelsea Green, Vermont 1991).

39 Freewheelers, 25 Low Friar Street, Newcastle-upon Tyne NE1 5UE; tel +44 191 2220090; fax +44 191 2615746.

40 Groningen is called 'the record-holder among cyclists' cities' in a useful, fact-filled report, *Greening Urban Transport; European Examples of Pedestrian and Cycling Policy*, published in 1994 by the European Federation for Transport and Environment, Rue de la Victoire 26, 1060 Bruxelles; tel +32 2 5376639; fax +32 2 5377394. The lessons learnt in seventeen other cities in seven countries are presented as well.

41 Material in English available from the Public Relations Office of Groningen City Council (Postbox 7081, 9701 JB Groningen; tel +31 50 672169; fax +31 50 672225) includes *Hand on Heart*; a New City Centre for Groningen, which describes the measures taken and includes maps and colour pictures, and an illustrated policy statement, *An Integrated Town Planning and Traffic Policy*, issued in 1992.

42 Details are given by Keith Chivers (ed.), *History with a Future: Harnessing the Heavy Horse for the Twenty-First Century* (1988), Shire Horse Society, East of England Showground, Peterborough PE2 0XE; tel +44 1733 390696; fax +44 1733 390720.

43 David Roodman and Nicholas Lennsen, *A Building Revolution: How Ecology and Health Concerns are Transforming Construction* (Worldwatch paper no. 124) (Worldwatch Institute: Washington March 1995).

44 *Energy-Efficient Subdivision Design: General Plan Policy Interpretation*, July 1992.

45 This is the County Planning Officer's Society, c/o Lancashire County Planning Dept., P.O. Box 160, Eastcliff County offices, Preston, PR1 3EX.

46 Estimate by William Gillis in T. Markus (ed.), *Domestic Energy and Affordable Warmth* (Watt Committee report no. 30) (Spon: London 1994).

47 The first car-sharing club, Auto Teilet Genossenschaft, Postfach, Mühlenplatz 10, 6000 Luzern; tel +41 41 524655; fax +41 41 529349.

48 AKF, Nyropsgade 37, 1602 København; tel +45 33110300; fax +45 33152875. Many of their publications are in English or have English summaries. The American power companies also have considerable experience in getting people to use less electricity, and the Results Center (IRT Environment Inc., PO Box 10990, Aspen, Colorado 81612-9689, USA) collates their results and publishes its findings.

49 Anders Larsen et al., *Virkemidler og Elbesparelser* (Measures for Savings in Electricity Consumption) (AKF: København n.d.),

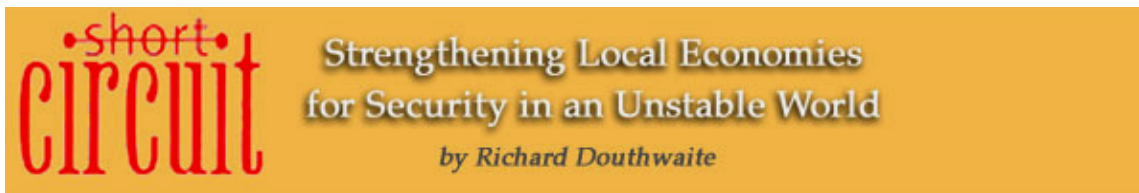
50 'Energy saving pays off', *Safe Energy Journal*, September-November 1995, pp.14-15. Robert Barnham can be contacted at LEEP, 72 Newhaven Road, Edinburgh EH6 5QG, Scotland tel; tel +44 131 5554010; fax +44 131 5552768.

51 Telephone interview, December 1995.

52 Press release, March 1995.

53 Telephone conversation, 1996. See Olivier's article 'Continental Efficiency', Building Services, March 1991.

54 L. Shorrock, *Potential Carbon Emission Savings from Energy Efficiency in Housing* (information paper 15/95), Building Research Establishment, December 1995.



## Chapter Six

### LIFE FROM THE LAND

Modern industrial agriculture cannot be continued for very much longer because of the damage it is doing to the soil and the way it is undermining its genetic base. Community farms are part of the answer, locally-owned shops another.

There are two powerful reasons why communities should produce almost all their own food. One we discussed briefly in Chapter Two. It is that any community which depends for its survival on buying its food from the outside world has to be able to sell enough of whatever it produces year after year to the outside world to earn the money to do so. This means the community being permanently exposed to the risks involved in selling its products on extremely unstable markets in the face of fierce competition from thousands of other producers all over the globe. Moreover, because it will starve without an income, it cannot refuse to sell its goods even if the prices offered for them are ridiculously low. It also has no control over the prices it pays for the goods it needs. In other words, the exchange rate between the goods it supplies and the food and the other necessities it brings in are fixed externally and the international trading system determines the level at which the community's members live. They are dependent on, and hence at the mercy of, outside forces in the most fundamental and intractable way.

The reason few people in the industrialised world worry about being in such a powerless state is that, unless they are small farmers, the world agricultural system has operated in their favour for over a century by steadily reducing the length of time they have had to work to earn the money to buy the necessities of life. For them, at least until newspapers began to run stories with headlines like 'Droughts bring global food crisis' in the autumn of 1995<sup>1</sup>, the idea that food might run short seemed ridiculous - after all, one of the EU's major problems had been controlling its agricultural surpluses. Why should anyone want to give up such an advantageous situation until events leave them no alternative?

The second argument for greater local food self-reliance provides the answer. It is that the system which has provided this apparent abundance is fundamentally unsustainable and liable to sudden, catastrophic collapse. One reason for its unsustainability is, of course, the huge amount of fossil energy the system takes to grow, pack and transport our food. According to the Swedish Food Institute, 15.8 MJ of energy is needed by the industrial system to produce, transport and sell a 1kg loaf which provides our bodies with 10 MJ when eaten <sup>2</sup>. Similarly, 1kg of frozen peas takes 22.6MJ to produce and distribute, ten times the amount of energy the peas contain. The figures for beef grown on



fertilised pasture are similar: each kilo delivers 6MJ of energy when eaten but absorbs 64.2MJ of fossil energy in the course of reaching the shop. Fertilisers in fact represent about half the fossil energy required by conventional chemical agriculture <sup>3</sup> and between five and ten per cent of the energy used in an industrial country. In Britain as long ago as 1978, transporting food to shops accounted for a further 11% of national energy use <sup>4</sup>. Since that statistic was calculated, there has been a 50% increase in the distance food travels to reach our plates so the amount of fuel used must have grown substantially <sup>5</sup>. Putting everything together, as much as a quarter of all fossil energy could now be consumed by the food sector <sup>6</sup>.

A second reason for the system's unsustainability is the damage modern agriculture does to the soil. It used to be said that liming land enriched the father and impoverished the son. This was because making the soil less acid with lime caused a rapid breakdown of plant humus, releasing nitrogen for a few years which produced luxuriant growth. However, when the nitrogen was exhausted, crop yields dropped to well below their former levels because of the deterioration in the soil's structure and composition. Only the annual application of a lot of farmyard manure to replace the humus could prevent the soil being spoiled. Artificial fertilisers also give higher yields for a number of years before an eventual decline because, like lime, they too destroy the soil's structure and make it more liable to erosion. Indeed, in some intensively-farmed areas in southern England, 20 tonnes of topsoil is being lost per hectare per year <sup>7</sup>, far more than if the land was farmed traditionally or by modern organic methods. This erosion is serious since according to one estimate a loss of even 12 tonnes of soil per hectare reduces yields by 8%. <sup>8</sup> In South East Asia, chemical farming methods are already ceasing to work: despite higher levels of fertiliser application, yields of Green Revolution rice varieties are declining by 1% year upon year <sup>9</sup>.

These reasons for the world food system's unsustainability are widely known and just as widely ignored. However, very few people also know that the system is genetically unsustainable and might suddenly collapse, causing the deaths of hundreds of millions of people from starvation and to political, social and military consequences comparable with those of a nuclear war. Since this danger can only be minimised by community action and is unfamiliar even to many of those already involved in sustainable, low-input types of agriculture, I devote the next few pages to explaining how it arises and what can be done.

After the construction of the railways, farmers in Cornwall were able to take advantage of their milder climate to grow winter and early spring produce for markets all over Britain. One of their crops was cauliflower, and the type they grew was the Old Cornish, which had been selected into several varieties from seed brought into the county in the 1840s from Italy. Unknown to the farmers, the Old Cornish was resistant to ringspot, a fungal disease which, in Britain, is most common in Wales and southern and southwest England, and which causes brown spots on the larger leaves which eventually turn yellow and die.

In the 1940s after a breeding programme at Seale Hayne agricultural college in Devon, Sutton's Seeds and the Ministry of Agriculture introduced the growers to French

cauliflower varieties and within ten years the Old Cornish cauliflowers were no longer produced because the shoppers of the day preferred the dense white curds of the French variety to the loose yellow ones of the Cornish strain. No-one held seeds of the Cornish type, the line was gone. Shortly afterwards, ringspot outbreaks were noticed and it is very much more difficult to grow satisfactory crops of cauliflowers in Cornwall today. Growers have tried to find resistant French seed but production disasters have been experienced in some parts of the county. Rotation with other crops helps reduce the problem, as does feeding the soil heavily with wood ash or another source of potassium but there is no chemical means of control.

"The new varieties caused the extinction of the best (and perhaps the only) real source of resistance to the disease - the Old Cornish cauliflowers" Cary Fowler and Pat Mooney write in their account of this tragedy in their disturbing book *Shattering: Food, Politics and the Loss of Genetic Diversity*<sup>10</sup>. "We will never know what other valuable traits may have disappeared."

This story has two morals. One is that we may not have the option of switching to a sustainable, low-input, artificial pesticide-free agriculture unless we preserve the seed varieties - or at very least, the genes - which made this form of farming possible in the past. (The preservation of animal genes is equally important, as a panel further on in the chapter explains.) The other lesson is that chemicals are inadequate substitutes for natural resistance and that without genetic diversity we may well become unable to feed ourselves at all.

For thousands of years, the seeds people planted were not pure strains with little genetic variability but what are called landraces, natural assortments of seeds adapted to local conditions. As a result, although diseases or pests were present every year, only the vulnerable plants in the assortment in the field would succumb. Most of the crop would survive because of the defences the landrace had developed during hundreds of years of exposure to its enemies in agriculture and many thousands of years in the wild. Today, unfortunately, the variability which produced this security is thought undesirable. Modern growers want all their crop to look the same, taste the same and behave in the same way in the field, after harvest and in the kitchen. This means that they demand, for example, wheat seeds that produce plants that grow to the same height in the same time and are ready for harvest simultaneously. As a result, from the 1800s onwards, plant breeders have been selecting particular characteristics from amongst the multitude available in landraces and in the wild and crossing and re-crossing their selections until they arrive at a pure line, a strain which breeds true - that is, without any variability - from generation to generation.

In a field planted with a landrace, if a pest finds one plant unpalatable, it moves on to the next one which is not. There is no pressure on the pest to change. However, when thousands of acres of a pure line are planted, pests and diseases have no alternative but to adapt to overcome the various resistances the line has had bred into it. They do so remarkably quickly. In an experiment at the International Rice Research Institute (IRRI)

in the Philippines, brown planthoppers, the most serious rice pest in Asia, were confined in a cage with Mudgo, a hopper-resistant rice variety. Most starved to death, but some produced a second generation. By the time the tenth generation had emerged about three months later, the planthoppers were devouring Mudgo as readily as any other non-resistant rice type. Plant diseases adapt with great speed too: the first race of wheat stem rust was identified in 1917. Fifty years later, three hundred more races had appeared in response to the development of rust-resistant wheat varieties.

So in the industrial agricultural system, a desperate race is being constantly run between plant breeders and pests and millions will starve if the breeders lose. The life of a variety, Lawrence D. Hills, the founder of the Henry Doubleday Research Association (HDRA), once said with only a slight exaggeration, has been reduced to that of a pop record. For example, Triumph, a barley bred in East Germany, quickly became one of the main varieties grown in Ireland after its introduction in 1982. By 1989, however, its resistance to diseases had been eroded and it was superseded by an English-bred variety, Blenheim, which, by 1994, was needing to be replaced in its turn. When the inbuilt resistance of a variety ceases to work, pesticides can be drafted in to help it out but the pests rapidly become resistant to those too: it was only six years after DDT was introduced that resistance to it began to appear. Indeed, scientists are worried that resistance is developing among pests faster than they can devise new pesticides and that a number of very serious pests are about to become uncontrollable.

Plant breeders go to the landraces and to the wild plants from which they were originally developed for new resistance genes to build into their strains. Unfortunately, however, the collapse of traditional agriculture throughout the world and the success of the international seed companies in promoting their new varieties has meant that very few landraces are still being planted and only then in extremely remote areas. Wheat was probably first cultivated in the Balkans or Armenia and at one time the fields from Greece to India and south to Ethiopia displayed an enormous range of genetic variations. Within the past fifty years, however, almost all those fields have been switched to uniform commercial varieties and the richness of the genetic heritage they once contained has gone.

The value of what has been lost is illustrated by a story told by one of the first people to draw attention to the loss of genetic resources, Professor Jack Harlan of the University of Illinois, who collected a wheat plant in a Turkish field in 1948. Harlan wrote years later:

It is a miserable-looking wheat, tall, thin-stemmed, lodges badly, is susceptible to leaf rust, lacks winter hardiness.... and has poor baking qualities. Understandably, no one paid any attention to it for 15 years. Suddenly, stripe rust became serious in the northwestern states and [the wheat I had collected] turned out to be resistant to four races of stripe rust, 35 races of common bunt, ten races of dwarf bunt and to have good tolerance to flag smut and snow mould.<sup>11</sup>

Today, genes from that miserable-looking wheat are used in every programme to breed wheat for the northwest of the US and have saved the farmers there from losses running to millions of dollars.

No-one knows what potentially valuable genes have been lost with the landraces. True, not all the genetic material they contained has gone because, in part due to Harlan's warnings, concerned scientists set up the International Board for Plant Genetic Resources (IBPGR) in 1972 to collect varieties and landraces of commercially-important food plants and store them in gene banks. Over 110,000 wheat varieties and landraces and 12,500 wild wheats are preserved at the International Maize and Wheat Improvement Centre in Mexico and similar collections exist for, amongst others, potatoes, barley, maize, sorghum, rice, groundnuts, okra, cowpeas, sweet potato and beans. But just what proportion of the original diversity these collections contain is an unanswerable question. Moreover, while the collections of internationally important crops are incomplete, plants of regional and local importance are still largely uncollected and ignored. Amongst these are twenty different oilseed crops grown in East Africa which are almost unknown in the outside world and only a last-minute rescue by the Peruvian government saved varieties of Andean crops such as *Chenopodium quinoa* and *Chenopodium pallidicaule* and tubers and root crops including *Canna edulis* from passing into oblivion.

Just because genetic material has been collected does not mean it is safe. Far from it. The world rice collection is kept under refrigeration by IRRI in an impressive building not too far from two active volcanoes, one of them Mount Pinatubo, and right in the centre of an earthquake zone. Fowler and Mooney describe visiting the international centre responsible for the storage of sorghum and millet at Hyderabad in India to find the refrigeration system broken and shirt-sleeved workmen tinkering with pipes and mopping up water in vaults where seed librarians normally had to dress to cope with a temperature of minus twenty degrees Celsius. There have been many such incidents. For example, within the past few years a major collection of Peruvian maize was ruined when the refrigeration failed, 500 varieties of American cassava were lost in transit from one collection to another and in November 1988, a band of Shining Path guerrillas raided the International Potato Centre at Huancayo in the Peruvian Andes where over 4,500 varieties of potatoes are preserved by being planted out and harvested each year. The raiders intended to kill the scientists who maintained the collection and shot the head of security but, fortunately, the scientists were away in Lima where, concerned for their lives, they stayed for several months. The US National Seed Storage Laboratory at Fort Collins in Colorado, is sited between a nuclear reactor and a munitions factory. It is possibly the most important gene bank in the world but in the early 1980s was a total shambles, its cold stores liable to power failures and its seeds stacked in cardboard cartons and sacks on the floor. Worse, its staff were drying samples to prepare them for storage at 36 or 38 degrees Celsius rather than the 15 degrees recommended. There is no evidence of any great improvement since then. In November 1994, Henry Shands of the

US Department of Agriculture Research Service wrote that a quarter of the collection was not available to researchers, possibly because the items could not be found<sup>12</sup>. Another quarter had less than 65% viability and there was a 20-year backlog in the programme of growing varieties outside to re-generate them. "Gene banks are as prone to failure as their financial counterparts" Fowler and Mooney comment, "but their losses cannot be overcome by a printing press."

These horror stories should not be interpreted as an attack on the gene banks but a plea for many more of them, so that if one is destroyed nothing of consequence is lost. Unfortunately, however, there are more fundamental problems with storing varieties in gene banks than running them properly and keeping them secure. One is that in the outside world, the pests and diseases are continuing to adapt and change but the seeds, deep in their cold rooms, are no longer developing and throwing up new variations. They have been withdrawn from the race which they have been running against their enemies since the dawn of time. Consequently, if we rely on the banks exclusively we are bound to find some time in the future that the pests and diseases have developed a feature which our crops cannot resist because we have not given them the chance to evolve to do so.

A second problem is that seed can only be stored in a gene bank for so long before it dies, the actual time varying from crop to crop and the temperature at which the seed is stored. Accordingly, when an arbitrary proportion - usually 15% - of a sample in a gene bank has ceased to germinate, the rest is taken out and regenerated by being planted and the seeds it produces placed back in the store. There are two snags with this procedure, however. One is that the seeds which have died cannot be assumed to be genetically identical with those which successfully germinated in the regeneration plot. Some genetic information has inevitably been lost. The other is that 'genetic drift' takes place whenever a sample is planted and grown because of the different responses the plants show to disease, insects, weather and soil while they are growing. To demonstrate this Dr. Eric Roos, a plant physiologist at Fort Collins, took equal numbers of eight different bean varieties and ran them through fifteen cycles of aging and regeneration. By the end of the experiment, six of the varieties had become extinct. Seed librarians therefore face an acute dilemma. If they keep seeds for a long time so that only a small percentage germinate when they are regenerated, they will have lost the genetic material of those which died. If, on the other hand, they regenerate frequently to prevent these losses, other genes will disappear in the regeneration process itself. In other words, whatever they do, the librarians will be left with strains of seeds adapted to survive in gene banks but lacking many of the characteristics originally collected in the outside world.

Fowler and Mooney draw the obvious conclusion from this: that genetic diversity cannot be saved by seed banks alone and that their efforts need to be supplemented by community action. Diversity, they say, can only be saved with a diversity of ways: "No one strategy could hope to preserve and protect what it took so many human cultures, farming systems and environments so long to produce.... Diversity, like music or a dialect, is part of the community that produced it. It cannot exist for long without that community and the circumstances that gave rise to it. Saving farmers is a prerequisite of

saving diversity. Conversely, communities must save their agricultural diversity in order to retain their own options for development and self-reliance. Someone else's seeds imply someone else's needs". They also believe that diversity will not be saved unless it is actually being used: "Only in use can diversity be appreciated enough to be saved. And only in use can it continue to evolve, thus retaining its value....The need for diversity is never-ending. Therefore, our efforts to preserve this diversity can never cease....No technology can relieve us of the responsibility to preserve agricultural diversity for ourselves and all future generations."

What does this mean? Quite simply, that communities need to grow their food using seed they have saved themselves because only in this way can their crops adapt to local conditions and have some chance of developing resistance to whatever tricks the diseases and pests develop. In short, landraces are in. Pure lines and F1 hybrids - seeds resulting from the first cross between two very different strains which produce vigorous, identical plants whose seed cannot be satisfactorily saved - are out.

Some growers in the British Isles still save their own seed but many more were doing so until quite recently. In 1982 R.F. Murphy of the Kinsealy Research Station near Dublin began collecting the self-saved seeds which Irish farmers were using to plant crops in the cabbage/turnip family but by the time he came to write his report two years later, 40% of growers who had been saving seed when he started had ceased to do so and he reckoned that all but a small fraction of the diversity which had been present in the past had been lost. "We were right on the edge" he says<sup>13</sup>. He was, however, in time to rescue some interesting and potentially valuable plants from extinction. These included a unique cabbage from the Glen of Aherlow called 'Cut and Come' which, as it has several stems, looks rather like a wallflower. It can be harvested over a long period for spring greens, and, as its name indicates, will put out new stems after being cut the first time. In the West of Ireland he found several landraces of a fodder cabbage known as Flat Dutch whose seeds had been saved by families for over a century. These landraces had the advantage over the usual Dutch cabbage of being able to be sown in late summer, overwintered and planted out the following April without risk of bolting. Bundles of these cabbages can still be seen in West of Ireland towns at springtime displayed in the street for farmers to buy.

Murphy's seeds are now housed in the vegetable gene bank at Wellesbourne in Warwickshire where the world's main collections of radish, carrot, onion and brassica seeds are held. Dr. David Astley, the bank's manager, accepts that change and genetic drift are inevitable when seeds are stored and regenerated by institutions such as his. "The gene bank stock will come to differ from that outside. This makes re-collection necessary after a period of between ten and twenty-five years" he told me<sup>14</sup>. But re-collection is only possible if the material is still there - in other words, if the seeds are still being used by farmers - and in most cases they are not. Wellesbourne was set up in 1980 as a result of a special Oxfam appeal and in 1983-84 it sent staff to collect cauliflower seeds used by growers in Italy where some authorities think the crop was first developed - Syria is another possibility - and it certainly displayed a great deal of diversity.

In 1993, ten years later, Astley sent a PhD student back to see what had changed. "A large proportion of the variability had gone" he says. This was largely because agriculture had become more commercialised and the reduced number of people still involved in farming needed to produce crops acceptable to supermarkets and other customers longer distances away. "I'm told, however, that there are still landraces to be found well off the beaten track" he says. "If we wish to preserve the use of landraces in the areas they developed, it has to be in a system which develops good local seed production with quality control and where the landrace products are acceptable within a market economy. Such a system would need to be linked to research into the complexities of landraces and the farming systems which produce them."

So far, Astley's staff haven't even been able to get seeds from everywhere in Europe the first time around, let alone try to re-collect them to 'capture' any new genes and gene combinations for conservation and to see how varieties have changed since they were last collected and which have been lost. "There are still areas in which no-one has ever collected and I'm still trying to arrange national collection programmes" he says wearily. "International efforts are piecemeal and fragmented because of lack of funds. I get upset when I hear people saying that the gene banks have enough material in them. It does considerable damage if fundholders perceive that collection is no longer important and regard proposals for collecting trips to Spain or Portugal as pleasure jaunts."

While the EC has provided some funds for seed collecting, thousands of varieties have been lost as a result of its policies. On July 1st 1973, only months after its entry to the Common Market, the British government introduced regulations under the Plant Varieties and Seeds Act of 1964 making it an offence punishable by a £400 fine to sell seeds after 30th June 1980 unless the variety was listed on the UK national list or that of another EEC government. The regulations were introduced as a result of lobbying by an international organisation representing big seed companies, the Union for the Protection of New Varieties in Plants, UPOV, ostensibly to protect breeders from having varieties which had cost them a lot to develop being dishonestly 'adopted' by other seeds firms and sold under other names. They required that all new varieties be submitted to the Ministry of Agriculture for a DUS test to ensure that they were Distinct in form and shape from other varieties, Uniform in genetic structure and Stable - in other words, that they bred true. Testing cost £90 in 1976, when fees were first introduced, and had risen to £815 for cereals in 2002 <sup>15</sup>, plus an application fee of £300, which has to be repaid each year. A variety can be entered on the National list if it passes the test and undergoes a trial, for a fee of £1300 in 2002. The seed company responsible for the variety could also be asked to maintain an inspection plot so that the variety's uniformity could be checked.

If the regulations had been confined to varieties just coming on to the market they would have been fair enough. However, the legislation - and similar laws were enacted in the US, Canada, Australia and New Zealand as a result of UPOV's activities - covered old varieties as well. This caused a crisis for many smaller, family-run seeds companies which, since they lacked the financial resources to run breeding programmes, tended to

specialise in traditional strains. Most of these firms were unable to list their varieties because landraces, or any strains of seeds with some genetic variability were automatically excluded by the DUS test's stability requirements. Realising that their business would be so restricted that they would become unviable after July 1980, many sold out to their bigger rivals. The milling and bakery combine, Rank Hovis McDougall, bought up 83 small seeds firms in one week alone <sup>16</sup>.

In any case, no firm was going to pay for a DUS test for a variety it only sold in small quantities and since sales to professional growers generated nine-tenths of the average seeds firm's turnover, only those varieties popular with farmers and market gardeners were generally considered worth registering. This was more than unfortunate since amateur gardeners and organic growers require very different seeds from the mainstream professional. High yield, uniformity and the ability to travel well are some of the characteristics the commercial producer seeks whereas the amateur, above all else, wants a crop with flavour. With peas, for example, a farmer orders a variety which does not have to be supported with sticks, in which every pod ripens simultaneously so that it can be combined at exactly the right moment for the frozen food market, and which has little leaf or vine to block the harvesting equipment. An organic or amateur gardener on the other hand wants a tall pea to avoid getting an aching back from picking, which has pods ready for eating over a long period and which is best fresh rather than frozen. And yet, despite these different needs, as the seven-year notice period ran on, dozens of tall peas and thousands of other older varieties were gradually deleted from seed company catalogues and, the lesson of the Old Cornish cauliflower forgotten, allowed to become extinct.

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#### PANEL: LAST MINUTE HUNT TO SAVE LOST IRISH APPLE VARIETIES

One of Ireland's foremost experts on apples, Dr. JGD Lamb, visited old orchards all over Ireland in the late 1940s recording and photographing the varieties growing there for his doctoral thesis <sup>17</sup>. "Half a century ago we were still largely self-sufficient in fruit and vegetables. If you did not grow your own apples you maybe did without. This led to the development of cultivars of purely local fame" he wrote in 1995 <sup>18</sup>.

"In those days there was a country-wide network of county advisers in horticulture, many of whom had extensive local knowledge" he continued. "I also consulted the statistical surveys of the counties published in the opening years of the 19th century as several of these listed the apple varieties being grown at that time. When the same name was applied to an apple by orchard owners in different locations, I took it as a strong indication that the name was correct, especially if it appeared in the relevant statistical survey. In all I found seventy types of apple of Irish origin as living trees. Today, with the advent of the chain saw, how many survive?"

Anita Hayes, the founder of Irish Seed Savers, is attempting to find out. "Twenty-eight of the varieties Dr. Lamb recorded are in the apple collection at Brogdale in England. Another four are being grown by our Northern Ireland counterpart, the Armagh Orchard  
*Short Circuit* by Richard Douthwaite: Chapter Six 9



Trust. And we've found ten more since the campaign to find them began two years ago" she told me in late 1995. "One of these, Honeyball, was found by my postman who had eaten it as a child and knew the tree was still there today. Another, Red Brandy, a scab-resistant variety Dr. Lamb found in Piltown, Co. Kilkenny, was relocated by one of our members, Joy Daniels, who asked elderly members of her family the name of a tree her father had prized."

A third variety, the Ballyvaughan Seedling, which was widely grown in County Clare because it is so easy to propagate - it puts down roots easily if someone takes a cutting at the right time of year and just sticks it in the ground - did not appear on Dr. Lamb's list as his survey omitted the western counties. It was rediscovered by Genevieve Tenthorney, a geographer surveying the Galway Bay area for University College, Dublin. Tenthorney's father grows apples commercially in Switzerland so she was interested in an article Hayes wrote in the Irish alternative magazine *Common Ground* about the missing apples. "All around us are old unidentified apple trees" the article said. "Talk to the elders in your communities and see if they know anything about them. Watch them come September and see if they still fruit. Take a picture of them and dissect them and photograph them again to identify their inner structure. As important as identification and taste, find the stories attached to the trees."<sup>19</sup>

So Tenthorney began asking people about old apple trees as she worked on her survey. Eventually, she was taken to see a tree in an abandoned orchard in Ballyvaughan and she immediately felt it was something special. However, it was only several months later when she could taste its light yellow fruit with an attractive red flush that she could confirm her intuition. "It has a sharp taste when you first bite it but it is marvellously sweet with a long, lingering aftertaste just like a fine brandy" she says. She photographed it as instructed and posted the pictures to Hayes who passed them to Dr. Michael Henarty, a pomologist at University College, Dublin. Dr. Henarty could not put a name to the tree himself so he sent the pictures to a retired head of the department of horticulture at UCD, Professor CJ Clarke, a close friend of Dr. Lamb's and a fellow apple expert, who immediately knew what it was.

Hayes regards the hunt for the missing apples as a race against time because most of the people who know the trees' names and their stories are elderly while, every year, some of the remaining trees die or are rooted up. And, though Dr. Lamb and Professor Clarke are in excellent health, their expertise will not be available for ever. "These men were way ahead to their time" she says <sup>20</sup>. "It is so important that the old varieties are rediscovered and preserved before they, and people's knowledge of them, is lost altogether because all the old records mention how disease resistant they were and you've got to have scab- and canker-resistant trees for organic fruit production. They are part of local history and bring biodiversity into our lives in a practical way." A cooking apple growing in Piltown which Dr. Lamb was unable to name illustrates the potential value of what was being allowed to die. "It's a wind-resistant apple" Hayes says. "It carries its fruit right into the winter, long after its leaves have gone, and you really have to twist and tug to get the apples off." Peadar MacNiece of the Armagh Orchard Trust, who is a large commercial grower, hopes that a really fine eater will be found in the hunt which he will be able to grow for the market. "We can grow good cookers like Bramleys in this part of the country" he says, "but we haven't enough sun for any of the present range of eaters" <sup>21</sup>.

When varieties are re-discovered, cuttings will be grafted on to rootstocks and planted in an new orchard Dr. Henarty has established at University College, Dublin. Grafted specimens will also be grown in the Armagh Apple Trust's orchard between Moy and Portadown which already contains 42 old Ulster varieties, many not covered by Dr. Lamb, and in a heritage garden Hayes is setting up for Irish Seed Savers which will produce trees for sale to members. Plant quarantine laws have prevented cuttings from the Irish varieties at Brogdale being brought from England but Hayes has received permission to use tissue from them to culture into trees. Getting the old varieties widely distributed is important for their survival, she says, recalling that when Dr. Lamb and Professor Clarke established an apple collection in Dublin containing most of the lost

varieties in the 1950s, it was destroyed without warning by Dublin Corporation when the land was needed for something else.



*Collecting and mapping old pears and apples in Armagh for the Ulster Orchard Trust in September 1995. From right to left: John Carruthers, from Lisbellaw, Co. Fermanagh, Peadar MacNeice, and Jean-Paul Drominiou from Brittany Fruit Growers.*

Locating lost apple varieties is by no means Irish Seed Savers' only work. Hayes sees it performing two main tasks. One is the maintenance, through use, of

strains of plants which have been grown in Ireland for long periods. An example is the Delaway cabbage, a very dependable cut-and-come again type whose seed ISS obtained from an eighty-year-old man who had been growing it for fifty years. Another is the 'cut and come' cabbage which R.F. Murphy collected in the Glen of Aherlow: as soon as she learned its seeds were in the gene bank at Wellesbourne, she obtained a quantity to grow herself in order to get sufficient to send out to ISS members. She is also propagating traditional types of potato obtained from the museum collection kept by Teagasc so that she can send out tubers to members to try. "Their taste can be so different. This year, I was able to send samples of Lumpers, the potato people ate at the time of the Famine, out to schools so the children who were studying that period could eat them. They are horrible. They lie really heavily on your stomach, just like the books say."

The ISS's second task is to import traditional varieties from around the world which seem suited to Irish conditions so that members can grow them and, by saving their seed and passing it to neighbours, slowly develop strains which do well in their part of the country. "I'm working on 19th Century English and French melon varieties and also, being an American, I've found a pumpkin which has grown really well outside, even in the past two horrible summers" she says, before mentioning the thrill she gets moving along a row, selecting the plants whose seeds will be saved. "It's a big switch from producing your own food to becoming a caretaker for a plant variety and looking, perhaps, for a lettuce able to survive strong winds."

She thinks that most people have lost the community bonds and the spiritual joy that come from being in touch with the bounty of things that grow in the place they live. "Most of us now have no connection to the earth or the food we eat, some of which may never have been touched by a human hand. But native Americans used to sing to their corn to get it to grow. An American seed saver once came across a patch of corn which was growing much better than anything else nearby and he asked the Indian who had planted it why that was. 'It's because I remember the song' the Indian said. But the seed saver took seeds from the corn and when he grew them, he found that the strain had a tap root which went several feet into the ground so it was able to get to moisture that was unavailable to the other farmers' plants. That seed was taken to Africa so that the taproot could be bred into native varieties and the result was so successful that the breeder won a UN prize. That Indian hadn't just remembered the song. He'd saved the seed as well."

Once, after Hayes had been to visit Dr. Lamb at his home in Co. Offaly, she was taken to the door by his wife, Helen. "We thought it was too late" she told Hayes as they said goodbye. "But now perhaps it's not." And so it proved. IN February 1996, as a result of Hayes' work, the Lambs attended a lunch at University College, Dublin, to inaugurate the Lamb-Clarke Traditional Irish Apple Collection - the name given to the orchard being established by Henarty. Clarke, unfortunately, had phoned the previous night to say he was unwell. Peadar MacNiece brought cuttings of the varieties in the Armagh collection, and a representative of the Brogdale Horticultural Trust brought tissue from the apple varieties the two men had sent over to England years before so that they could be grown in Ireland again. Afterwards, two minibuses took the guests to Áras an Uachtaráin to be received by the President, who spoke feelingly of the importance of preserving this part of the heritage, not just of Ireland but of the world.

2003 update on Irish Seed Savers, by Caroline Whyte

Irish Seed Savers has become a much stronger organisation in the past six years, thanks in part to the help of Bridget Carlin, who Anita Hayes says "did a lot of work to get a government scheme for unemployed people going here". The new workers employed through this scheme are very committed, and Hayes says "their expertise is often deeper than mine at this stage". The organisation had 140 species of tree in 2002, and was also producing a variety of vegetables. It had expanded its site to 9 acres. Elsewhere in Ireland there is also ongoing research into seed production, such as Michael Miklas's work with native grains in Kilkenny.

Hayes mentions two major, interlinked concerns to do with world seed production. The first is the general trend of seed producers towards producing F-1 hybrids, and the second is the effects on local economies of the globalisation of seed production. F-1 hybrids are seeds that have been inbred so that they can't recreate themselves. The reason for their popularity is that they will produce a reliable crop with selected characteristics in the first year they are planted. However, the seeds gathered from these crops will regress back to resemble their less productive ancestors. Even organic producers frequently grow F-1 hybrids, which often are flown in from Africa, where labour is cheaper. Hayes explains, "we all were once more or less self sufficient in seed production, seed can be produced in most places - but as well as losing the skills, the economic incentive, even the organic sector unwittingly participates in global seed

problems, because when seeds are sown in Africa for us westerners it means as well as the ethical issues of poor wages etc., African varieties are supplanted by these new cash crops of seed. It is important, although difficult to understand, just how interwoven we all are and that our choices matter!"

Another obvious concern is climate change. Hayes says "Seed Savers doesn't have great land, but we manage to produce seeds. This last summer was horrendous in Ireland, though". Clearly if weather patterns continue to be so unreliable this would create a serious challenge to anyone involved with agriculture.

Dr Lamb still provides sound advice to Irish Seed Savers and has a beautiful garden at his home in County Offaly. Sadly, Peadar Mac Neice died in 2002. The Armagh Orchard Trust has moved to a permanent location in Loughgall (see address below).

Irish Seed Savers, Capparoe, Scarriff, Co. Clare, tel. +353 1 (0)61 921866, fax +353 1 (0)61 921397.

Armagh Orchard Trust, Manor House, Loughgall, County Armagh, BT61 8JA, tel +44 (0)28 388 92381, fax +44 (0)28 388 92382.

Common Ground, Gold Hill House, 21 High Street, Shaftesbury, Dorset SP7 8JE, UK, tel +44 (0)1747 850820, fax +44 (0)1747 850821, e-mail sue.clifford@commonground.org.uk, launched its 'Save our Orchards' campaign in 1989 and organises Apple Day on October 21st each year. It tries to emphasise the links between apple varieties and the places with which they are associated. Its publication *The Apple Source Book* includes a county by county gazetteer of apple varieties, recipes using specific varieties and details of selected nurseries and orchards.

Brogdale Horticultural Trust, Brogdale Road, Faversham, Kent. ME13 8XZ, tel +44 (0)1795 535286, fax +44 (0)1795 531710, e-mail info@brogdale.org.uk, has 150 acres of fruit tree collections, including 2300 apple varieties, 500 of pear, 350 of plum and 220 of cherry. Open to the public daily.

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The listing legislation also caused genetic material to be lost because only one strain of a traditional variety was allowed on the National List: all seeds firms' versions were regarded as identical although in many cases it was clear that they were not. In the 1970s for example, the Bedfordshire Champion onion was one of the most popular varieties with amateur growers and versions of it were listed in various seeds catalogues under such names as Bedfordshire Champion Hurst Reselected (a name which indicates that the basic variety still had some genetic variation within it and that a Mr. Hurst had tried to eliminate some of it), Golden Globe, Nuttings Golden Ball, Cambridge No. 10, Sutton Globe and Up-to-Date. After July 1980, all these strains had to be sold just as plain Bedfordshire Champion, completely disregarding the fact that reselection, both intentional and as a result of their having been produced on seeds grounds in different parts of the country had taken place over the years to such an extent that some of the strains now had resistance to downy mildew which the parent variety lacked.

Even if a popular old variety was registered, it only stayed so as long as the seeds firm responsible for it thought it worthwhile to pay the annual fee. In the years since 1980 as a result of cost-cutting exercises, hundreds of vegetable varieties have been dropped from the list and thus made illegal to sell. At the time this book went to press, if these varieties still existed, anyone wanting to sell their seeds would have had to have paid the full DUS test fee to get them restored to the list. In 1995, two decades too late, the British and French governments unsuccessfully asked the EU to relax its directive and allow unlisted seed varieties over 15 years old to be sold in small packets to amateur growers. "Our request is still on the table in Brussels" a Plant Variety Rights official told me in 1996. "We ran into trouble with the Dutch, who don't think that you can distinguish varieties for amateur growers. We're still hopeful." Simon Hickmott, HDRA's full-time seed grower, is not: "It will never happen" he says.

Because HDRA is the only amateur gardening organisation concerned with organic methods, it was the only one to know what the loss of the old varieties might mean and to kick up a fuss in the media, a campaign which, incidentally, played a large part in enabling and encouraging Oxfam to open the gene bank at Wellesbourne. HDRA also took action itself. For example, in order to get round the restrictions on selling unlisted seeds, Lawrence Hills organised a seed library and a network of members to grow old varieties for exchange with each other. It also wrote to seed companies asking to be kept informed of any varieties they planned to drop so that these could be taken into the library and published the first edition of its Vegetable Seed Finder in 1977 listing firms from whom listed older varieties might be purchased without breaking the law.

Almost twenty years later, these activities are still going on. HDRA's Heritage Seed Programme now has around 700 varieties in its seed library and the 4,000 members of the programme, who are not necessarily members of HDRA itself, are sent the library's catalogue annually so that they may order five of them - free, of course, as it would be illegal for them to be sold - to grow in their own gardens. They also get a quarterly bulletin, Leaflet, containing practical advice on seed saving and a Lost and Found section so that they can exchange rare varieties. The rare seeds the members order are produced in the project's gardens at Ryton near Coventry and by members who have volunteered to act as Seed Guardians and grow at least one variety for seed year after year. "We had 160 guardians in 1995 and will have more in 1996" Simon Hickmott told me. "At the moment, the number of people in the programme is growing very quickly and we badly need more guardians to produce seed for them because having varieties grown in several different places does a lot to reduced genetic drift."<sup>22</sup>

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*2002 update by Caroline Whyte*

As of 2002, there were still around 700 seed varieties in the HDRA seed library, and the number of seed guardians had risen to 300. The Heritage Seed Programme is now known as the Heritage Seed Library.

Drift is, in fact, very likely to affect seeds in the Heritage Programme as Hickmott realises: "We differ from other seedbanks in that we have a very short period between generations, with very little seed being left in long-term storage - seeds are only kept back as insurance against failures. This leaves many varieties open to change and evolution from their original characteristics but we feel that our approach at least allows our members to use the seeds. Our emphasis is always on making varieties available which are essentially suited to the amateur grower."

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#### PANEL: PURE NO MORE? SEED MIXTURES CUT CHEMICAL USE

One of the tragedies about the way the West Germans annexed East Germany was that the communist state's good features were jettisoned along with the bad. Agriculture was no exception. The GDR put a lot of resources into plant breeding and its barley varieties were grown throughout Europe. However, in East Germany itself, they were rarely grown by themselves. Instead, the state farms planted mixtures of the advanced barleys in their fields because this enabled them to avoid using fungicides which would have had to have been imported from the West for precious hard currency<sup>23</sup>.

This use of barley mixtures was based on work carried out in the early 1970s at the Plant Breeding Institute in Cambridge in England by Martin Wolfe and John Barrett which showed that if three spring barley varieties were planted together, the plants were healthier than if each was grown apart. This, the researchers found, was because if one strain lacked resistance to a particular fungus, each stem was further from infected stems of the same variety and shielded from them by the resistant types. Moreover, although one of the components of the mixture might yield better than the other two in a particular year, it was impossible to predict which it would be and, consequently, the blend gave the highest, most stable yield from year to year.

Although some Danish farmers used this information and grew mixed crops successfully, barley mixtures never caught on in the West because the maltsters to whom all the best barley is sold refused to take them. Malting is harder to control if the seeds in a batch do not have the same properties and those in a blend obviously do not: they vary in size, nitrogen content and the length of time to germination. Western malting companies had no interest in overcoming this challenge whereas the East German maltsters did. As a result, 92% of the 350,000 hectares of spring barley grown in the GDR at the time of reunification was a mixture (the remaining 8% was used to grow pure seed for blending) and an estimated 400 tonnes less of fungicide was used each year. East Germany's valuable exports of malt and beer to the West were unaffected

"This national-scale German experiment was highly successful despite the fact that, as we discovered later, the crop diversity that they were using was much less than had been thought" Professor Wolfe told me in early 1995. "At the time of re-unification, the main problem was that the east German farmers had then to sell their harvested seed

direct to, mainly, west German maltsters and brewers who paid higher prices but were not prepared to buy mixed seed. This forced the barley growers back to monoculture of the preferred quality varieties with application, once more, of expensive west German fungicides."<sup>24</sup>

According to Wolfe, who now works in the plant pathology department of the Federal Polytechnic in Zurich, some barley mixtures are still being grown in Germany to be sold to more open-minded maltsters and there is also some interest in wheat mixtures there. An estimated 100,000ha of wheat mixtures are already being grown in the US as a result of work by Dr. Chris Mundt and in Switzerland, where farmers are paid a subsidy not to use fungicides, insecticides and straw-shorteners on their crops, there has been a rapid and successful shift to the planting of mixtures of winter barley in those cantons where mixed seeds are available. However, Wolfe is most excited about his department's collaboration with Dr. Edward Gacek in Poland where farmers already plant over a million hectares of mixed species as opposed to mixed varieties. "Roughly 700,000 ha of barley/oats and about 500,000 ha of barley/oats/wheat are being grown" Wolfe says. "This development occurred over the last thirty years initiated and stimulated by the farmers themselves without the support of scientists and against a background of criticism from the communist regime."



*The Wolfes (photo:  
Patrick Whitefield,  
Permaculture Magazine)*

Wolfe hopes that plant breeders will now develop seed varieties specifically for mixing as he thinks that this would lead to considerable output gains. "Even more exciting could be selection of different species for positive interaction" he says. "This is because species mixtures have two principal advantages over variety mixtures. First, there would be no development of pathogen races able to attack the component species simultaneously because most, although not all, pathogen species are specialised to a single host species. Second, because different species utilise different factors in the environment, there is greater potential for 'complementation' among species than among varieties. We, and others, have had highly positive results with, for example, different forms of cereal/legume mixtures such as wheat and beans. Indeed, in the Third World, maize/beans is a very common crop and there is the well-established grass/clover mixture in Europe."

The ultimate mixed species cropping system is, of course, agroforestry. "My wife and I are now establishing four experimental agroforestry systems on a small farm in Suffolk as a long-term retirement project " Wolfe says. "One of our objectives is to indicate the possibilities for drawing people back to the countryside either directly to run such complex enterprises or indirectly to make use of their manifold products."

*2002 Update by Caroline Whyte*

Professor Wolfe's agroforestry farm at Wakelyn's has done very well in the past seven years. He is also involved with the Elm Farm Research Centre, and in fact, the research done at Wakelyn's is a collaborative effort with Elm Farm.

At the Wakelyn's farm, everything is grown amongst trees, with a complex rotation of crops. Wolfe explains that "the aim is to try and use biodiversity in all systems," as a way of promoting healthy plant development and discouraging pests and disease. The trees are all fairly young still - around 8 years old - and they are planted in North-South oriented rows to maximise the sunlight's passage into the area between the trees, where the other crops are planted. They are spaced 12 metres apart, which Wolfe thinks is a bit narrow for potential farm use - he recommends spacing them 24 metres apart instead. Some of the hardwoods could eventually grow big enough to block light from the smaller plants. But two of the species grown in other systems, willow and hazel, can be coppiced to allow more light to get through, and this has worked very well. Apple trees are also grown at the farm - they are interspersed among the other hardwoods in order to discourage the spread of pests and diseases among the apples, and Wolfe comments that this has been very effective.

The smaller crops are also grown in species mixtures - for example, cereals or vegetables are inter-cropped with clover, and wheat is mixed with beans. Within individual species there are experiments with variety mixtures, such as different varieties of wheat being mixed together, and different varieties of potato.

A third activity carried out at the farm is a new project on population breeding which is funded by a grant from the British government. The project is scheduled to last six years. The first stage, which has already been completed, is to take a range of different varieties of wheat and to intercross them in all combinations, creating a giant gene pool. Then, samples of the population will be grown on different sites so that they adapt to the specific environment of their site, effectively becoming landraces. The different samples can then be compared to each other to see how they have evolved and separated. Wolfe himself is growing a sample which he intends to compare with a sample grown by a neighbour of his, who is also a farmer but who farms conventionally rather than organically. It should be interesting to see the differences between the two samples.

Wolfe also hopes that this project will produce material quickly that can be used by organic farmers, because there is a dearth of appropriate varieties available to them at present. He comments that "we may have to develop a new legal framework for dealing with this new variable material". He is also involved in projects to try to involve farmers more directly in research. He points out that at present there is an unnecessary and unhealthy divide between the farming done by farmers and the agricultural research done by scientists. This divide only came about in the decades since World War II - historically farmers have always been very involved in experimenting with their crops. Although research institutes have often done valuable work, there is a tendency for them to focus too much on commercial opportunities because they can get royalties for variety production, and less on the actual needs of farmers. The current focus on GM crops is a good example of this.

Information about the Elm Farm Research Centre's work can be found on the Centre's website at [www.efrc.com](http://www.efrc.com). The Soil Association's website ([www.soilassociation.org](http://www.soilassociation.org))



contains an interesting report on the detrimental effect that GM crops have had on farmer's incomes in the US and Canada.

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Seed Savers' Exchange in the United States is a much bigger operation, although in its early years it received a donation from HDRA to help it get going. It was set up in 1975 by a gardener, Kent Whealy, who had inherited some seed from his grandfather-in-law and shared the old man's conviction about their importance, and now has around 5,000 varieties in its library. Many of these were not in US government seed banks in 1985 when a study commissioned by a committee of Congress revealed that, of, for example, the 1,799 varieties of beans which Seed Savers' network of 630 farmers and gardeners were storing or growing, only 147 could be found in official collections<sup>25</sup>. And, while Seeds Savers had 554 varieties of tomatoes and five of spinach, the government had 133 tomatoes and no spinach.

In Ireland people know only too well what happens when a country relies on a crop with a narrow genetic base. All the twelve or so varieties of potato grown in Ireland before 1845 had been bred from just two introductions and consequently the plant had an extraordinarily narrow range of genetic variability, particularly as farmers never grew them from seed but planted setts cut from the tubers, a process which made every plant exactly the same as the next. When the potato was first grown in Ireland in the late 16th Century, it had left all its enemies behind in the New World and was described as being 'peculiarly exempt from blights and mildews' and 'more tenacious of life than couch grass'<sup>26</sup>. As a result, it was particularly useful as a standby against summers so wet that most of the cereal crop was lost and is credited with preventing several local famines. In the West of Ireland, however, potatoes came to be grown on a huge scale by people whose holdings of boggy, stony land were too small to allow them to plant the crop in different places each year on, say, a four-year rotation, even had there been other crops with which to rotate them. In most cases, only the potato would grow.

As the years passed and trans-Atlantic sailings became more frequent, the potato's enemies made the crossing too. In the 1750s a dry rot arrived which would destroy potatoes in store. Leaf curl, a virus disease spread by aphids which can reduce yields by 70%. arrived in the 1770s. Then came botrytis, a blue-grey mold which rots the leaves and stems in 1795, and blackleg in 1833, a bacterial disease which poisons the plant, blackening the stems and rotting the tubers in the ground or during storage. And finally came blight. It was first reported in the Isle of Wight in June 1845 and had spread to every country in Europe by August. Whole fields became blackened and stinking almost overnight. There was nothing anyone could do.

As these diseases arrived, potatoes became progressively riskier to grow. In each of the three quarter-centuries between 1724 and 1799, there were five years in which the potato crop was bad but only three or four of the fifteen were serious enough to be officially rated as famines, with relief works being organised on a wide scale. Between 1800 and 1824, there were nine years of bad crops of which five were judged to be famines. The

worst was in 1821 when a quarter of a million people died. Between 1825 and 1849, however, there were fourteen years of bad or disastrous crops, at least eight involving famine. Over a million people lost their lives and two million emigrated. Moreover, the effects of the loss of life and the enforced emigration which Henry Hobhouse documents so well in *Seeds of Change*<sup>27</sup> will be with us for ever.

Had a gene conferring blight resistance not been found amongst the thousands of types of potato peasants were cultivating in the Andes and in Mexico and bred into our modern varieties, it is unlikely that anyone in Europe would be able to grow it today. Despite this, however, the crop almost had to be written off again sixty years later as a result of potato wart disease, a fungus which causes spore masses like black cauliflower curds to grow from rotting tubers. The fungus spreads in soil and even muddy boots or windblown dust are enough to take it from place to place. In 1908 the problem had become so serious that it was made a notifiable disease. However, the following year a Ministry inspector noticed that two varieties, Snowdrop and Golden Wonder, were never affected and it was from these that all other resistant varieties have been bred. As a result, for the moment, wart disease is no longer a serious problem.

When Lawrence Hills told this story in a HDRA newsletter in 1980, he pointed out that it was only because a range of potato varieties was being grown that people found out that genetic resistance to wart disease existed and in which varieties. If only one type of potato had been cultivated and the rest all kept in gene banks, rectifying the situation would have taken much longer than it did.

The potato is currently threatened by blight again: a second form of the disease has crossed the Atlantic and scientists fear that it will interbreed with the first and produce a hybrid so vigorous it proves uncontrollable<sup>28</sup>. Most other major crops face similar threats and according to Fowler and Mooney, current trends make it almost inevitable that at least one of them will become impossible to grow: "If enough diversity is lost, the ability of crops to adapt and evolve will have been destroyed. We will not have to wait for the last wheat plant to shrivel up and die before wheat can be considered extinct. It will become extinct when it loses the ability to evolve and when neither its genetic defences nor our chemicals are able to protect it. And that day might come quietly even as millions of acres of wheat blanket the earth."

## PANEL: ANIMAL BREEDS NEED TO BE PRESERVED TOO



*Only three examples of the Kerry bog pony were known to exist when John Mulvihill, who keeps a pub outside Killarney, began to take an interest in them in 1987. By 1995, when they were recognised as a distinct breed by the Irish Horse Board, twenty-two ponies had been discovered.*

In a rational world, cattle with the ability to produce rich milk from rough hill grazing on which other breeds would

starve would be recognised as a valuable resource and prized. In the world as it is, a breed with that ability, the Kerry, almost died out and was only saved at the last minute. Its low point was in 1982 when there were only 110 cows and 96 heifers in Britain and Ireland. The number of these tiny black animals - they are no more than 38 inches high at the shoulder - have doubled since then but some of their genetic diversity has been lost. "You don't find the range of genetic material that you would have found previously" says Dr. Dan Bradley of the Department of Genetics, Trinity College, Dublin, who has studied them. "They are much more uniform than they would have been had their numbers not dropped so low." However, the Kerry's value is now appreciated and to minimise in-breeding and prevent more characteristics being lost, the Department of Agriculture in Dublin uses a computer programme to advise owners on the bulls they should use to inseminate each cow.

The Kerry was almost lost despite having a breed society to record pedigrees and promote it, a show record going back to the 1840s and the proven ability to convert its feed into milk more efficiently than almost any other type of cattle. In tests as long ago as 1841, a Galloway cow consumed 21.75lbs of hay a day from which it produced 6.25 quarts of milk which was churned into 0.65lbs of butter. The Kerry, however, ate 16.875lbs of hay and gave 7.5 quarts of much richer milk which turned into almost a pound of butter<sup>29</sup>.

The Kerry's ability to produce rich milk from heather-covered hillsides gave it the title of the poor man's cow. However, the present secretary of the breed society, Raymonde Hilliard, who milks fifty Kerry cows grazed on frequently-flooded roughish land outside Killarney, says that yields will increase to justify the use of good land if it is available. The bull calves have are good for beef, too, which is unusual in a milk breed. "They just take a bit longer to reach weight" she says. A slaughter weight of about 560lbs at three years - tiny by Charolais standards - is regarded as fair. She sells in-calf heifers for about £650 but "people want them for peanuts"

Many other traditional animal breeds with potentially-valuable characteristics for a sustainable, low-input system of agriculture are either still in difficulties or owe their survival to the Rare Breeds Survival Trust in Britain. In particular, sustainable systems of agriculture and food distribution are going to mean an increased role for the horse.

There were million heavy horses were in use in Britain in 1920, 775,000 on farms and the remainder in transport and distribution<sup>30</sup>. In 1990, however, according to a Ministry of Agriculture census<sup>31</sup>, there were only 4,500 on farms and smallholdings, slightly up on the 1979 figure of 4,375. "I would say only about 10% of them are in use" says John Ward of the Shire Horse Society. "Most are kept for breeding purposes. There are about 3,500 mares and because the market for pure-bred foals as been very depressed of late, there's been a lot of cross-breeding to produce jumpers and riding horses that can carry a little weight. A good mare will sell for around £2,000 and a working gelding for £1,500. You get a lot of horse for very little money."

As there are about 3,500 Shire horses the breed is safe but the Suffolk Punch, which is more useful than the Shire for slow work on heavy land and able to tolerate harsher conditions, is down to 350 and Clydesdale numbers are also low. "The Suffolk Punch is classed as an endangered species. There are very few bloodlines available but if you talk to the breeders, they'll say they are not seeing any problems but are aware of the dangers" Ward says. With horses, a breed is considered endangered if there are less than 333 breeding females and critical if there are less than two hundred.

It seems unlikely that the reduced number of heavy horses will prevent communities reducing their reliance on the products of the motor industry as the number of animals could be doubled every four years if the demand was there. "You can expect a mare to give birth every year but it would be three years before you could get any real work from the foal" Ward says.

*2003 update by Caroline Whyte*

As of early 2003, there were approximately 3000 Shire horses in the UK according to the Shire Horse Society. Suffolk Punch numbers have gone down to 200, and there is information about the campaign to save the breed at the Suffolk Punch Pages website. Clydesdales are more numerous, at about 1000, and are also popular in the US and elsewhere in the world.

Shire Horse Society, East of England Showground, Peterborough, Cambridgeshire PE2 6XE, UK, tel +44 (0)1733 234451, fax +44 (0)1733 370038, e-mail [shire.horse@eastofengland.org.uk](mailto:shire.horse@eastofengland.org.uk).

Rare Breeds Survival Trust, National Agricultural Centre, Stoneleigh Park, Warwickshire CV8 2LG, UK, tel +44 (0)24 7669 6551, fax +44 (0)24 7669 6706. e-mail [enquiries@rbst.org.uk](mailto:enquiries@rbst.org.uk). Membership costs £20 in the UK, £30 elsewhere, and includes copies of a quarterly magazine, The Ark.

Genetic Heritage Ireland (Irish Genetic Resources Conservation Trust), c/o Trinity College Botanic Gardens, Palmerston Park, Dartry, Dublin 6, Ireland, is primarily for scientists. Subscriptions are EU 20. However, it has close links with the Irish Rare Breeds Society, Dromard, Co. Sligo, tel +353 71 66002, which is much more for practical breeders. The Society's directory of Irish rare breeds covers cattle, sheep, pigs and horses.

The consequences of genetic inadequacy overcoming a major crop would be much worse than those of the collapse of the world's financial system. It is therefore absolutely imperative that each community re-create landraces suited to its area by planting and saving mixtures of seeds. This would mean that its crops stood a fighting chance of being able to maintain their resistance to pests as rapidly as the pests developed new ways of overcoming it. Communities should also establish their own chapters of organisations like HDRA and Seed Savers so that, just as with money and credit, they can exchange seeds locally and have an alternative, independent source of genetic material available should the mainstream multinational one fail.

"Who would survive if wheat, rice or maize were to be destroyed? To suggest such a possibility would have seemed absurd a few years ago. It is not absurd now" Jack Harlan wrote as long ago as 1972. "How real are the dangers? What is the potential magnitude of the disaster? One might as well ask how serious is atomic warfare. The consequences of failure of one of our major food plants are beyond imagination."

## REDUCING EXTERNAL INPUTS

It is not enough for a community to grow its own food from seed it has saved. It also has to end its reliance on other external inputs as well. The following table<sup>32</sup> sets out how extensive the changes in agriculture needs to be if communities are to become more self-reliant:

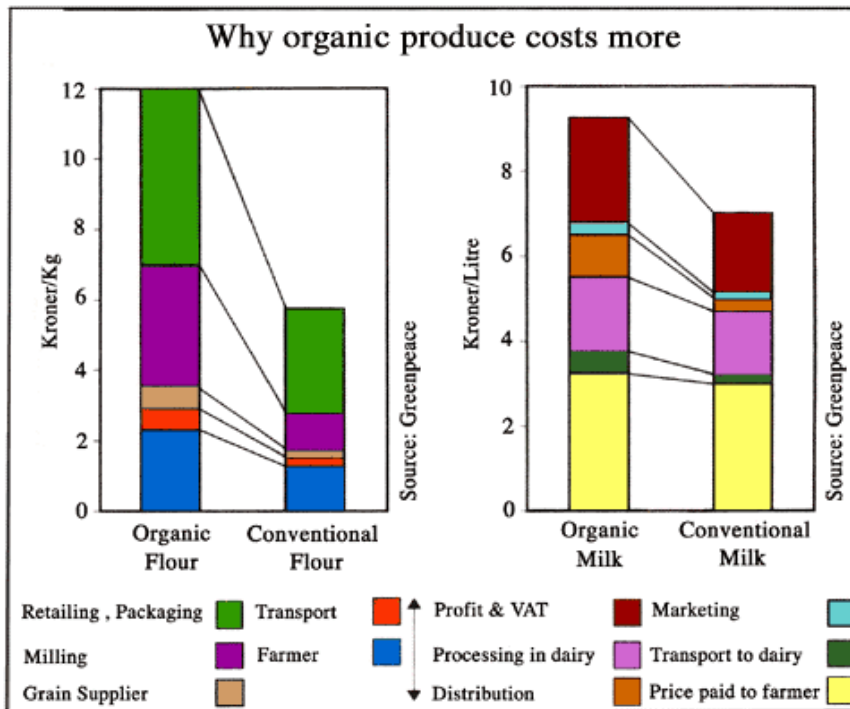
	SELF-RELIANT SYSTEM	CONVENTIONAL SYSTEM
SUN	Main source of energy	Supplemented by fossil fuels
WATER	Mainly rain and small irrigation schemes	Large dams, centralised distribution, deep wells.
NITROGEN	Fixed from the air and recycled in soil organic matter	Primarily from inorganic fertiliser
MINERALS	Taken from soil and recycled	Mined, processed, imported
WEED & PEST CONTROL	Biological, cultural, mechanical and locally available chemicals	With pesticides and herbicides
ENERGY	Some generated or collected on farm	Dependent on fossil fuel
SEEDS	Most produced locally	Most from elsewhere
VARIETIES	Thrive in difficult	Need high input levels

	conditions	
ANIMALS	Integral part of farm	Produced in special units
CROP SYSTEM	Rotation and diversity	Monoculture
LABOUR	Labour-intensive; Most work done by farmer's family	Low labour requirement; most work done by hired labour and machines
CAPITAL	Provided by farm family or community shares. Any surplus reinvested locally.	External loans or shares; any surplus sent away
MARKET	Primarily local	Primarily far away

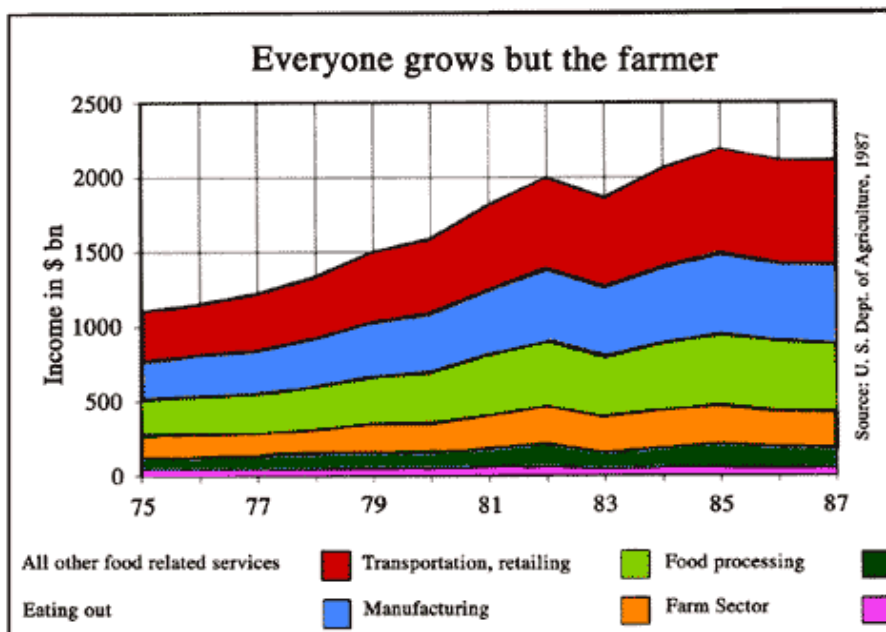
Switching to the sort of low-external input system outlined in the table is not the same thing at all as reverting to traditional farming and the difficulties and increased costs attached to doing so are less than most people imagine. This is because many of the problems associated with high-energy, chemical agriculture are created by the system itself and become much less serious when the approach and scale are changed. For example, the use of nitrogenous fertilisers makes pesticide applications almost inevitable because they encourage plants to make lush, sappier growth which is much more liable to insect and fungal attack and which contains more free amino acids, substances particularly attractive to bacteria which cause decay. Avoid using artificial sources of nitrogen and you can usually avoid using artificial pesticides too. Another cause of pest problems are the larger fields needed by farmers if they are to use bigger, more powerful equipment because the hedgerows bulldozed to create them were the predators' habitat. A low-input agriculture would use less power machinery and either restore the hedgerows or plant special areas in which predators could thrive.

In any case, just as we saw with renewable energy in the last chapter, food produced in a community using a low level of inputs from outside is highly unlikely to cost more than its brought-in equivalent if the community has unused resources such as land and labour and it can express the costs of using them in local terms, perhaps through pricing them in its own currency. Even when this is not the case, food produced using low external input techniques need cost no more more than conventionally-grown food by normal accounting standards. For example, a study of the costs and returns from winter wheat production in Britain in 1979 showed that the gross margin per hectare was £393 on the organic farms and £399 on chemical ones if the higher price paid for organic grain was ignored<sup>33</sup>. A similar survey of 200 conventional, organic and biodynamic farms in Baden-Württemberg in Germany showed that organic methods can produce almost as heavy crops as chemical ones<sup>34</sup>. A lot depended on the quality of the soil, there being much less difference in yields on the better soils, and as organic farming improves soil quality, the longer a piece of land was farmed organically, the closer to the chemical yield its output became. Winter wheat, for example, yielded on average 3.3 tonnes per hectare on an organic farm three years after it had been converted from chemicals but 4.2 tonnes after seventeen years. The average chemical yield for the area was 4.7 tonnes and, as this figure can be expected to fall slowly as a result of soil loss unless counteracted by

the introduction of improved varieties, after a decade or two organic output may well surpass the chemical one.



Graph 6.1 Danish organic farmers are paid a little more for their wheat and milk than their conventional neighbours. The big difference between the price of organic and conventional produce in the shops is due to the higher mark-ups imposed by the distribution chain.



*Graph 6.2 Although the market value of food sold in the US doubled in 1975-85, the amount going to the farmer stayed almost constant, rising from \$40 billion to \$45 billion over the period.*

One particularly impressive 1993 study of four mixed farms on Minnesota showed them to produce net incomes for the families which ran them between 50 and 100% above the average for the conventional, chemical farms in their area despite the fact that their acreages were significantly below the local average<sup>35</sup>. Their higher profit margins came about because although they used more labour, they spent nothing on buying fertilisers and pesticides, inputs which could make up around 40% of their neighbours' total costs<sup>36</sup>.

Jules Pretty looked at the results of many similar studies for his book *Regenerating Agriculture*<sup>37</sup> and concluded that low external input farms could be more profitable than conventional ones because while yields per hectare were lower, their input costs were lower still. "Generally, the loss in yield per hectare is some 5-10% for crops and 10-20% for livestock" he writes. "Livestock perform less well mainly because of the substantially lower stocking rates necessary for clover-based pastures. Grassland in Britain has very large amounts of nitrogen fertiliser added and it is almost impossible to match returns when switching to clover pastures. But there is good evidence to suggest that the animals are better off. In Germany, cows in 'alternative' herds are more fertile and live longer". What he might have added is that male farmers who don't use chemicals have higher sperm counts which makes them more fertile too<sup>38</sup>.

Even if the low-input yield is lower, the loss in weight will almost certainly be counterbalanced by a gain in nutritional quality. A study by Werner Schuphan showed that vegetables grown organically with only natural compost as fertiliser gave on average 24% lower yields than their chemically-fertilised equivalents but contained 23% more dry matter<sup>39</sup>. In other words, the chemical fertiliser was causing the plant to water itself down. The organic vegetables were sweeter as, weight for weight, they contained 19% more natural sugars. They were also better food, containing 18% more protein, 28% more vitamin C and 77% more iron. Not unexpectedly, they also had a much lower proportion of undesirable chemicals, containing 93% less nitrates which can be turned into strongly carcinogenic nitrosamines by mouth bacteria, and 42% less free amino acids, substances attractive to decay-causing bacteria.

So, although fertilisers, pesticides and herbicides are artificially cheap in the mainstream economy because their price does not cover the cost of the environmental damage they do (A US estimate is that a dollars-worth of pesticide does a dollar's worth of environmental damage, implying that a tax should be imposed on pesticides to double their price)<sup>40</sup>, and the extra labour that low-input farming requires is artificially expensive because of the taxes placed on it, low-external input food products should prove highly competitive with conventional chemical ones, especially if they are sold more directly to the customer.

In any case, it would certainly be very difficult to use fewer external inputs if one intended to sell the produce through the conventional food distribution system. This is because of the grading standards imposed by the British supermarket chains which, by



the end of 1994, had grown so large that they were handling just over half of all fresh fruit and vegetables consumed in the country. As this figure had grown from 24% in only a decade, it was expected to reach 70% by the end of the century <sup>41</sup>. In order to meet these standards, growers were compelled to use fertilisers and sprays to achieve the highly-uniform, cosmetically-perfect fruit and vegetables the chains claim their customers demand. Despite this, large quantities of slightly blemished or mis-shapen produce had to be dumped - one estimate is that half of all organic fruit and vegetables and a fifth of all conventional produce is rejected on appearance grounds alone <sup>42</sup>. Moreover, the range of varieties supermarkets will accept is very limited and those they specify have therefore to be grown on large scale creating pest and disease problems. Of the 2,000 varieties of English apple, only nine are widely sold.

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#### PANEL: RURAL REFINERIES REQUIRED TO REPLACE OIL-BASED CHEMICALS

Although constructing a largely self-reliant local economy will certainly not mean a return to the materials and technologies of the Middle Ages, it will involve picking up some strands of technological development where they were dropped earlier this century as a result of the increasing availability of oil and, to a lesser extent, coal. As David Morris, a co-founder of the Institute for Local Self-Reliance in the United States, puts it, sustainability and self-reliance necessitate moving from a hydrocarbon-based economy to a carbohydrate-based one - that is, from a system based on the consumption of the densely-compacted remains of prehistoric plant matter to one based on fresh plant material - and he stresses the prospects that this would open up for rural communities.

"One cannot know the future unless one knows the past" Morris says . "Little more than a hundred years ago, plant matter was a basic industrial raw material. The first commercially successful plastic was not made from oil but from cotton. What happened is that a billiard ball manufacturing company, Phelan and Collender, concluded from surveys that the rate of slaughter of African elephants was proceeding at such a pace that it would soon exhaust the supply of ivory for their product. They offered a \$10,000 prize to anyone who could create a material as hard as ivory that was also abundant and widely accessible" <sup>43</sup>.

Chemists had already learned that if cotton was treated with nitric acid, an insoluble explosive, guncotton, was produced, but that if less nitric acid was used, the product, though flammable, was not explosive and was soluble in a mixture of alcohol and ether. If the solvents were then allowed to evaporate, a hard horny transparent substance was left which could be made workable by adding turpentine or camphor oil. In 1862, a prolific inventor, Alexander Parkes, showed a sample of the plastic, which he called Parkesine, at the International Exhibition in London but he although he realised its potential he was unable to commercialise it and his company collapsed in 1868. However, two American printers, John and Isaiah Hyatt, were inspired by the ivory-substitute competition to carry out their own experiments and produced a plastic which they brand-named Celluloid which was used to make buttons, dominoes, false teeth and eventually cinematic film as well as billiard balls.

Other plastics and synthetic fibres based on natural materials soon followed. Count Hilaire de Chardonnet extruded dissolved cellulose through a fine nozzle to make rayon, and the first commercial rayon factory opened in France in 1889. This led to a cellulose acetate yarn, Celanese, which was introduced in the 1920s and had a third of the synthetic fibre market by 1940. In the 1930s, cellulose acetate was moulded into steering wheels, instrument panels and knobs for cars, uses which brought it into competition with Bakelite, the first hard, durable plastic which was invented in 1909 and was made from phenols and formaldehyde both of which were, or could have been, derived from wood. Cellulose is also, of course, the basis of Cellophane which is made from wood pulp.

However, the further development of a chemical industry based on natural feedstocks was halted by the growth in oil refining to produce petrol for motor vehicles. Refining left the oil companies with a lot of embarrassing waste gases such as methane, ethylene, propylene and butylene and they undertook extensive research to find uses and hence a market for them. Gradually, their laboratories developed products which, as they were cheaper and in many cases technically superior, replaced almost everything being made from plant material. For example, paint manufacturers found that petroleum-based resins gave them shorter, more predictable drying times than plant resins and that naphtha (white spirit) was a much cheaper thinner than turpentine distilled from pine trees. US petrochemical output soared from only 10,500 tons in 1921 to 1.5 million tons in 1939. Being waste-based, these chemicals were remarkably cheap - their average price on the outbreak of World War II was only 13 cents per pound.

By 1945, petroleum-based synthetic fibres such as nylon had only 0.5% of the US clothing market, whereas plant-based synthetics like rayon and Celanese had over 10%. By 1980, however, as a result of the introduction of acrylic and polyester fibres, clothing made from oil had a 64% market share. Plastics production also soared, rising from 6m. tones a year in the US in 1965 to 30m. in 1990, but plant matter-derived plastics virtually disappeared. Even Cellophane suffered. Displaced by polymerised ethylene, polythene, its production dropped to less than a quarter of the postwar peak. Of all non-food products made from plant material, only paper and cardboard output continued to expand in the US, although even this growth was less than it might have been because of competition from oil-based products, particularly polythene. For example, polythene envelopes replaced paper ones for posting many periodicals and polythene bottles reduced sales of cardboard milk cartons by 60%.

Petrochemical consumption in the US is now 109m. tons a year, 75 times greater than its 1939 figure and almost 16 times greater than the consumption of biochemicals. Morris, however, thinks that the trend might be about to begin running in the other direction for two reasons. One is that the cost of producing chemicals from plant matter is falling. The second is that environmental regulations have raised the cost of producing and disposing of oil-based products and also of disposing of plant wastes, encouraging farmers and processors to find uses for them, just as oil refineries had to do with their waste seventy years ago.

"Consider sawdust" he says. "About 50m. tons of sawdust are produced each year creating a disposal problem. It can be burned inside the sawmill, but the dust particles are a fire and explosion hazard. It can be tipped in landfills, but sawdust is easily blown

about and hard to handle. It can sit in piles in the sawmill yard but rain will eventually cause tannic acid to leach into the water table." These problems, he says, stimulated a Missouri company to open a plant to convert sawdust into fuel oil and activated carbon, which is used in waste-water treatment plants and as a toner in copying machines. The same company claims that a second plant in upstate New York makes speciality chemicals from plant waste 30% more cheaply than from oil.

"A 50% recovery rate for agricultural wastes would generate 175 million tons of feedstock, theoretically sufficient to displace virtually all petrochemicals" he comments, pointing out that the wastes have a much higher value as chemicals than as fuel. "Lignin, which on average comprises about one-third of woody crops, has an energy value of \$6 a ton and a chemical value of \$120. Besides cellulose, a ton of wood can produce 350 pounds of lignin and 80 gallons of ethyl alcohol."

He adds that, in contrast to the techniques used to manufacture petrochemicals, the biological processes used to convert plant matter are inherently environmentally benign. "Breaking down organic minerals like coal and oil requires high pressures and temperatures - breaking the carbon-hydrogen bond requires over 600 deg C. Most chemical processes also employ large quantities of strong inorganic acids or alkalis such as sulphuric acid and sodium hydroxide. These can result in effluents which harm the environment. The hydrogen-oxygen and oxygen-carbon bonds of cellulose are weaker and almost all bio-processes occur at 30-40 deg. C, at near-atmospheric pressure and at near-neutral pH levels".

A table in a major 1992 study *The carbohydrate economy: Making chemicals and industrial materials from plant matter* which Morris wrote with Irshad Ahmed, shows that vegetable-based chemicals are still much more expensive than petrochemicals in a lot of product categories: the difference varies from about 20% for inks and 50% for detergents to 100% for paints and 200% for plastics<sup>44</sup>. Nevertheless plant-matter based products have gained market share because of a combination of green consumerism and direct regulation. Plant matter-based detergents, for example, have benefitted equally from the 75% drop in enzyme costs over the past few years and from the growing bans on phosphates. Printers have two incentives to purchase printing inks based on vegetable oils: first, regulations may soon be promulgated limiting the evaporative emissions of hydrocarbons from inks; and, second, vegetable oil-based inks reduce the need for clean-up chemicals which may themselves create environmental problems.... Paint manufacturers already face regulations on hydrocarbon compound emissions, which are an important ingredient in the formation of ground-level ozone.

"Biorefineries can become the backbone of a new rural economy" Morris says. "Because plant matter, unlike petroleum, is costly to transport, processing facilities will tend to be modestly-sized and located near their raw material suppliers. 200m. tons of waste and virgin plant matter would be sufficient to supply 700-2,000 new biorefineries. The higher estimate would allow one such facility in every rural county in the country."

He sees the biorefineries being run by farmers' co-operatives and says that several co-operative biorefineries are already operating. "Minnesota Corn Processors is the largest corn-to-ethanol producer in the state. The Dairyman's Co-operative in California converts

whey into ethanol and whey protein concentrate. And a fledgling kenaf co-op is operating in Mississippi" he says.

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Another problem posed by the supermarkets for growers is the huge quantities required for each chain's dozens of stores and their unwillingness to assemble these quantities by buying from several different suppliers: most chains will only deal with companies able to deliver to all their stores from a number of regional depots. Crop consolidators such as the East Kent Packers' co-operative which outgrew its name and now grades and packs produce from growers all over southern England, have been established by growers in order to meet the chains' requirements but, nevertheless, orchards have been grubbed up and market gardens closed down throughout the country. It was usually smaller growers serving local shops who gave up the struggle. This was because three-quarters of the independent retailers with whom they dealt closed down between 1978 and 1993 as the supermarkets took their business.

Increasingly, the supermarkets have turned to imports to meet their needs and French apples - mainly the tasteless Golden Delicious - have 35% of the British market while British apples have only 25%. In September 1994, although abundant home-grown supplies of apples, onions, carrots and green beans were available throughout Britain, Hugh Raven, the co-ordinator of the Sustainable Agriculture, Food and Environment (SAFE) Alliance, a coalition of groups working to research and promote sustainable agriculture found apples transported 4,700 miles from the United States, onions brought 12,000 miles from New Zealand, carrots 5,100 miles from South Africa and green beans 3,600 miles from Kenya on sale in three central London supermarkets. As he told Charles Clover, the environmental correspondent of *The Daily Telegraph*: "It is madness to fly food halfway round the world - like the American raspberries on sale here at the height of our raspberry season - when British growers are going out of business."<sup>45</sup>

The overall effect of the replacement of locally-owned bakers, greengrocers, butchers and provision merchants by retailing chains has been to push up the distance that food has to travel. Raven, whose estimate that it now travels half as far again as it did in the late 1970s I quoted earlier, calculates that this increase was responsible for one-third of the rise in the total amount of freight carried on British roads. Crazy centralisations contributed to this. Boots, for example, buys all the sandwiches sold in its stores from a company near Derby and delivers them in vans overnight while all dairy produce sold by Safeway pass through a single distribution depot in Warwickshire, regardless of where they were imported or made.

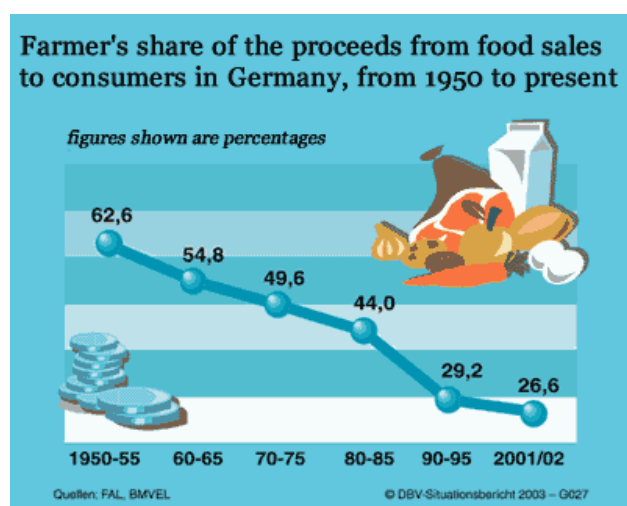
But these distribution networks, along with the packing houses and the advertising and marketing activities which necessarily accompany them are, in fact, the supermarkets' Achilles heel because they are costly to run. Indeed, as the chains have developed over the years, a larger and larger proportion of the price the consumer pays has had to be used

to cover the operating costs of the distribution system itself rather than paying farmers and growers for their output. For example, between 1982 and 1992, food prices to consumers rose by 52% but the prices paid to growers by supermarkets increased by only 18%<sup>46</sup>.

It is not just in Britain that increasingly powerful processing and distribution sectors have taken advantage of farmers and growers. In 1973, when there were 35,700 family farms producing pigs in Ireland, bacon factories were dotted all over the country and of the price the shopper paid for a pork or bacon product, half, on average, went back to the farm<sup>47</sup>. By 1996, however, there were less than 700 pig farmers although the total number of pigs reared in the country had more than doubled. And, thanks to government policy, there were only six bacon factories of any size, three of which were controlled by one company, Avonmore. As a result, just over a fifth of the price of a pack of bacon was getting back to what had now become a factory farm rather than a family one. In the United States between 1980 and 1987, the amount the farmer received for his contribution to a box of cornflakes fell by a third while the price of the box to the consumer went up by the same proportion<sup>48</sup>. In the Federal Republic of Germany in the 1950s, threequarters of all spending on food went back to the farm. Thirty years later, the proportion had dropped to a fifth<sup>49</sup>. In Denmark in 1991, 56% of the pre-tax price of a bag of flour was absorbed by packaging, transport and sale through the shop, 25% went to the farmer and 13% to the miller<sup>50</sup>.

*2003 update by Caroline Whyte*

**Feb 2003:** By 2000, farmers in the US were being paid an average of \$0.09 for their contribution to the production of an 18 oz packet of cornflakes, for which consumers paid on average \$2.14. (This and many other farm-to-retail price spreads for the US can



be found on the USDA's website). In Britain, the farmer's share in the sale price of food had fallen from just over 50 per cent in 1945 to 7.5 per cent in 2002 (Source: Wessex Reinvestment Trust Market Feasibility Study, University of Salford, Oct 2002)

In 2002, farmers in Germany got an average of 27 cents for every euro consumers spent on food. The ratio fluctuates wildly depending on the type of food in question – for dairy products they got 43 cents, but for wheat and other bread-related

products they got 4 cents (down from 45 cents in the 1950s!) (Source: ZMP (Zentrale

The message is clear. Organic and other low-input producers need to short out the supermarkets and sell to the public either directly or, avoiding wholesalers, through a local shop. Either course would enable them to gain a larger part of the amount the customer pays for their goods while at the same time disposing of produce that, though safer and more flavourful than that grown with chemicals, the supermarkets would have required them to leave in the field.

## COMMUNITY AGRICULTURE

Community Supported Agriculture (CSA) is an approach which such producers should consider because it is not only a powerful method of direct selling but much more besides, as we will see shortly. It was born in Germany and Switzerland in the 1970s, became popular movement in North America in the early 1990s and has now spread back across the Atlantic to Britain and Ireland. Robyn Van En became one of those who introduced it to the United States almost by accident. In 1983, she had just moved to Great Barrington in Massachusetts with her six-year-old son planning to continue her training as a kindergarten teacher. "I was looking for a house on about five acres" she told me in the sitting room at Indian Line Farm, her home about three miles outside the town, "but this was the cheapest property available".

When she got it, the 90-acre former dairy farm had been out of production for two years since the Willcoxes, who had farmed it since the late 1940s, had sold out to a speculative builder who wanted to build luxury houses on its thirty-acre upper pasture to take advantage of the splendid view. The Willcoxes had felt fortunate to get a buyer for the property at all. Dairying in the State was in rapid decline because it had become so cheap to truck milk 1,500 miles from Wisconsin that two thirds of the milk consumed in a state which had supplied a large part of New York City's requirements by rail in the 1930s was coming in from outside. Half of Massachusetts' milk producers went out of business between 1980 and 1993, 7% quitting in 1988 alone. In many cases, their land went unsold and is now reverting to forest while their houses are either occupied as holiday homes for a few weeks a year or collapsing from neglect and decay.

Van En bought the sixty-acre rump of the property from the builder and farmed a small part of it organically for two years, selling most of what she grew to a group of local families which had come together to buy their food staples collectively. This eliminated her marketing problems but left her finding all the working capital, carrying all the risk and doing all the work. "I knew that there had to be a better way to farm" she says, "something co-operative, that allowed people to combine their abilities, expertise and

resources for their mutual benefit while at the same time bringing the people who grew the food closer to those who ate it."<sup>51</sup>

In the middle of her second growing season in 1984 Jan Vandertuin, who had worked on several organic and conventional farms, returned to the US from Switzerland and was taken out to Indian Line by a mutual friend. While he had been away, Vandertuin had helped set up Topinambur near Zurich, a collective producing vegetables for about 125 member-families and milk for even more. It had been modelled on two similar Swiss projects, Les Jardins de Cocagne near Geneva which employed three full-time gardeners to supply organic vegetables every week to about 550 people, and Agrico near Basel, which had four people plus a part-timer producing eggs, milk, vegetables and grain for over 150 families. "After talking for only a few minutes, Jan and I knew what we should do at Indian Line Farm" Van En says.



*Robyn van En and Hugh Radcliffe bringing in the harvest at Indian Line Farm. (photo: Clemens Kalisher)*

Because neither of them felt that they had sufficient horticultural experience to start on their own, it took over a year to put their plan into action. However, Van En prepared the way by getting thirty families to combine to harvest 360 bushels of apples from an old orchard where they would otherwise have been left to rot. They turned most of the fruit into apple juice, vinegar and cider, each family paying \$90 in advance to cover the costs. The following year, though, the missing component arrived when they were approached by Hugh Radcliffe, an experienced biodynamic gardener and a former research biologist at Cornell University who had come to believe that orthodox science was inadequate to understand the living plant. In the autumn of 1985 Radcliffe began preparing raised beds for spring planting on three acres leased from

Van En and a prospectus was issued. This offered thirty year-round shares, each adequate to feed 2-3 people, plus a further thirty winter root-crop shares, designed for people who had their own vegetable garden for fresh produce in the summer

but who did not grow enough potatoes, turnips, parsnips and other root vegetables to see them through the rest of the year.

"Distribution of the harvest will be twice a week in season and then once every two weeks for winter storage crops" the prospectus read. "The harvest will be divided into equal shares and made available at various pick-up points around the area. We plan to provide, per delivery, an average of 5lbs of vegetables/herbs twice weekly in season and about 20lbs every other week in winter."

The costs of growing these were estimated at just under \$21,000, which worked out at \$557 per full share and \$140 for a winter share, assuming that all the shares were taken up. As had been the case at Topinambur, prospective members were also asked to provide two days' labour each during the year and to accept that the final price of their share could vary by as much as 12% either way, depending on how things turned out. Members were also asked to demonstrate their commitment to the project by paying for their shares in advance if they were able to do so. Because of the success of the apple harvesting, most of the shares were sold without much difficulty, particularly as roughly \$13 a week for 43 weeks' supply of really fresh organically-grown vegetables - which was what a full share was expected to provide - would be better value than any shop.

When production began, the gardeners and their assisting members aimed to have everything picked by 11am on delivery days. "If there were 35 shares each receiving two lettuces, one red leaf and one romaine, then that is what we would cut" Van En says. "Most other things were picked according to what was ready or ripe". These bulk items were weighed on an old railway goods scale and then divided into individual shares using baby nursery scales. Packed in dampened returnable muslin bags, each member's share of the harvest was available for collection from the farm at lunchtime or left, by arrangement, at several drop-off points in the town during the afternoon.

The following season's prospectus offered 55 full season shares at \$597 each, and twenty winter shares at \$160, giving the project an income of \$36,000, 80% of which was spent on labour. Even so, Radcliffe was paid only \$13,500 for his thirty weeks of work during the growing season, a sum which a core group member later admitted was about half of what he should have earned. In 1988, the cost of a full share set at \$300 by the simple expedient of halving the quantities that members could expect to get as some families found that they had been receiving more vegetables than they could eat. As a result, 135 full season shares were taken up.

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## A FARM WHERE FOOD IS FREE

Indian Line Farm was one of two CSAs to be established in the US in 1986. The other pioneer was the Temple-Wilton Community Farm near Wilton in New Hampshire, which was set up shortly after Trauger Groh arrived in the area from Buschberghof, a farm in Fuhlenhagen village about twenty miles east of Hamburg in Germany on which he had been working for the previous fifteen years. Temple-Wilton and Buschberghof were - and are - biodynamic farms run according to a system developed by Rudolf Steiner. According to Willy Schilthuis in his book *Biodynamic Agriculture*, this is based on:

an awareness or sense that every living being has a link with the spiritual cosmic world and that it is the duty of every human being to guide the life of these beings in such a way that the links can



take place undisturbed. Furthermore, [biodynamic farmers] work on the basis of the view that the Earth is a living organism and that a farm itself is a living organism.<sup>52</sup>.

In practice, however, the main differences between biodynamic and ordinary organic agriculture are that biodynamic farmers try to plant according to the phases of the moon, make compost using six special preparations containing cow-horn, and spray their crops with two different extracts of such things oak bark and yarrow leaves prepared with specific animal organs.



*The main building at the Buschberghof.*

Buschberghof went biodynamic in the early 1950s, just as the movement was recovering from its suppression under Hitler. Its conversion did not shield it from the problems faced by other small farms, however, even though it had low input costs and was able to sell its produce for an above-average price under the biodynamic Demeter label. All food prices, biodynamic, organic and conventional, fell steadily in relation to wages in Germany in the 1950s and 60s, making it increasingly difficult for

orkers and support his family. Like everyone else, he tried to cut his costs by mechanisation and should have borrowed from the bank to purchase equipment. In 1968, however, he realised that he would get deeper in debt each year and that if he continued like his colleagues did he would be made bankrupt and lose the farm that had been in his family since the 16th century. Feeling he would rather give his land away than have it taken from him by his creditors, he set up a land trust and transferred it to that. At this point, Trauger Groh appeared on the scene. He too was a farmer but his land had been compulsorily purchased for a military airfield and he had cash to re-invest. The two men recognised that processing the milk and cereals the Buschberghof grew was likely to provide a better basis for supporting their families than buying another farm for Groh to work and so his capital was given to the trust and spent on building a cowshed, a dairy with a flat above, a flour mill and a bakery. It was also used to erect a large pink building in the distinctive anthroposophical style on a low hill outside the village which contains two private flats, a big kitchen and dining room, a library and meeting hall and accommodation for twelve people with handicaps who, in accordance with Steiner's teachings and the farm families' feelings of social obligation, are looked after at the farm and work in the gardens, the dairy or in the house.



*Christina Groh examining her cheeses*

Since Groh and Loss had provided the trust with its land, stock and equipment, it would have seemed wrong for them to have had to rent it back to use it. However, they paid the trust an annual fee to cover the depreciation of the machinery and the repair of the buildings. "The new farm started in a financially difficult position with three families to support at a time when the market for biodynamic and organic produce

was very limited" Groh's daughter, Christina, says . "The farm was slowly developed with the improvement of its soil, pasture and livestock.... At different times we sold our produce through a farmshop, wholesaler and weekly van-round. However, we found that a lot of time and energy was being spent on marketing."<sup>53</sup>

In 1987, the families working the farm decided to adopt an idea Trauger had just put into practice at Temple-Wilton and after discussions with their van-round customers and people who had been calling to the farm to buy their milk, they set up an 'economic association for the care of plants, animals and man' with a target membership of about 80 families, the number they felt the farm could feed <sup>54</sup>. (The farm has 210 acres, of which four are vegetable garden, 106 arable and 69 permanent pasture. The rest is woodland. The farm team estimated that the 179 acres under grass and crops would feed 288 people on the basis of 0.25 hectares (0.62 acres) to feed each person. This figure turned out to be a little conservative). The idea behind the association was that each year the farm would estimate its running costs for the year ahead and the subscribers to the association would pay these, not to obtain their food but to support the farm's work. However, whatever was produced on the farm would be free to be distributed among the subscribers.

Families with 195 members subscribed for the first year, 1988. This was not enough to take up the farm's full output and so the farm shop and other sales continued in parallel. Most of these subscribers came from the farm's milk-distribution circles, groups of about ten families who picked up the milk on behalf of each other. The following year, however, 95 families with 321 members signed up and the farm shop and the remaining milk circles were discontinued. As at Temple-Wilton, each family decided how much it could afford to give each month to support the farm and paid that to the association's treasurer. It could then order as much food as it liked.

This system is still in use. "There hasn't been any abuse. No-one, for example, has ordered more than their household can eat to sell or give away" Wolfgang Stränz, a chemist and language teacher, told me as we drove out the farm on one of his monthly journeys to collect produce. "That's because we are organised into groups of eight or nine families living in the same part of Hamburg and take it in turns to assemble the orders and make the collections. Everyone in the group would soon know if someone was taking advantage".

In 1995, the budget for the farm was 500,000 DM, which means that, with 90 families participating, the average subscription was around 5,500DM or £2,500. How much of its food did his family get for its contribution? I asked Stränz. "Well, we buy tea and coffee, beer, salt and pepper, noodles and rice. We eat tomatoes from the Canary Islands before the crop on the farm is ready. And on Sundays, I might go to the baker's for hot white rolls. But that's all. Everything else comes from the farm. The range of food we get is quite broad. There are nine different sorts of bread and seven types of cheese, for example".

The old Loss farmyard is in the centre of the village. Wheat, dinkel ( an ancient form of wheat popular on biodynamic farms) barley, oats and rye are stored in one of the brick-built barns facing the farmhouse, waiting to be processed in the mill in the same building. Not far away is the bakery, its big wood-fired oven still warm from a firing three days

ago. In another of the barns, a farmer is repairing equipment, of which there seems to be a lot, mostly fairly new. The pigs, who seem to be enjoying their carrots, are in a shed away from the road. Stränz unloads empty wooden crates he has brought with him from his car boot, each marked with a family's name, leaves the orders for the farmers to make up before the next collection in four day's time and drives about half a mile up to the main building, beside which the haybarn, cowsheds, and dairy have been built.

We take off our shoes and put on special boots before going into the dairy where Christina Groh is separating curds for cheese-making from whey in a big stainless steel vat. Her mother, Gisela, and her sister, Patricia also live on the farm. She presses a switch and the whey is pumped outside into a wheeled tank so that it can be taken back down the hill to feed the pigs. While Stränz unloads holders containing the empty fruit juice bottles that the farm uses for milk from his car and loads up with filled ones, she proudly shows me the racks of cheeses maturing in the cellar below. She also makes butter and yoghurt. "Before we joined the system, biodynamic butter was just too expensive for us to buy" Stränz says. "Now we even cook with it."

Tobias Pedersen, the herdsman, walks past and Christina calls him over. He is English and has only lived on the farm for about six months. He had very little German when he arrived but is now getting fluent. Later I meet his wife Andrea and one of their four young children. "This is much more satisfying work than I could ever find in England." he tells me. "There, I would have to look after a herd of at least 200 animals and spend all my time at it. Here, I look after just thirty, so I can do things properly and do a lot of other jobs on the farm." The cows, which belong to the land trust, are Anglers, a rare red-coloured breed from the area. It is June, so they are grazing in a pasture not far away from the farm's wind turbine. In winter, however, they will be fed on hay inside. "We don't use silage" Christina says. "Milk from animals fed on it has a certain taste and is not nearly as good for cheesemaking."

A lot of the straw from the cereal crops is used for the herd's bedding and piles of manure are composting outside the cattle shed. Seeing they are so well equipped and already using one form of alternative energy, I ask Christina if they have considered composting it in a biogas digester. She discusses with Stränz whether this would be in accordance with Steiner's principles, and eventually they agree that it would but that the straw mixed with the dung might be a problem. I also ask if they have considered cutting their external inputs by replacing one or more of the farm's four tractors with horses. Yes, I am told, but suitable horses are hard to find and someone with the skills to work them even harder.

A garden surrounds the central building, an orchard adjoins it and the vegetable garden is in the field below. Two polytunnels shelter behind a hedge and there are swings and a sand-pit for young children. These are needed as Patricia, Christina and the four farmers who run the farm all have young families. Patricia helps care for the handicapped residents - work for which the government gives a grant - and four or five biodynamic agriculture students are usually working on the farm at a time. In addition, the farm has a paid employee and the handicapped have two other carers. Carl-August Loss had a stroke in the early 1990s and can no longer work. He lives with his wife in a pretty cottage in the village which was bought and restored by the trust. His daughter and her husband

are planning to build a house in the village to be near them and they may take an active part in the farm.

As we drive back to Hamburg, dropping off some of the milk at a kindergarten on the way, Stränz says that association members feel very much a part of everything going on in Fühlenhagen because they meet the farmers and see what is happening when they go out to pick up orders and each group selects one of its number to attend the monthly management meetings there. They also attend the farm walks which are held monthly each spring and summer and some members work on the farm regularly during the week or for several weeks during the summer. Members can picnic on the property at any time.

However, the association is worried that although the farmers can live reasonably well on what they are paid since they get their food free and their accommodation is provided, not enough financial provision is being made for when they retire. "They will need to be able to buy houses and have decent pensions" he says. "Perhaps our subscriptions should be higher." Since my visit, not only has provision for pensions has been added to the farm budget, but a 5% allowance has been added to it to build up a fund for new investments. When we reach his house, he puts the milk and the crates on some covered shelves outside his side door and, a few minutes later, drinking tea inside, we hear the bottles clinking as members of his group arrive to pick their orders up.

I found the Buschberghof an inspiring example of what a CSA can be but the real question is - can it be copied elsewhere? Part of the CSA's success is due to the trust which has effectively subsidised food prices by not loading the farm's budget with rent for its land and buildings or interest on the money tied up in its livestock and capital equipment. How many British and Irish landowners would be prepared to turn over their land and capital to a similar trust and set up a CSA in the same way? It is true that in America, Trauger Groh was able to find three families prepared to allow the Temple-Wilton farmers to use their land in exchange for whatever food they wanted for themselves but the families did not give up the titles to their properties and entered into the arrangement chiefly to stop their unused fields reverting to scrub. In places where such landowners cannot be found, groups keen to set up a CSA will have three alternatives. One is that their members will simply pay more for their food in order to cover rent and interest payments. The second is that the groups will set up a land trust along the lines set out in a later panel. The third is that they will find a way to use one of more of the techniques for creating local money and mobilising local savings mentioned in chapters Three and Four to provide cheap or interest-free finance for their community farms.

But a much more important element in the farm's success than the subsidy is the set of beliefs that drive the Buschberghof farmers and their supporter-subscribers along. Without similar beliefs in the importance of the highest standards of care for the land, crops, animals, nature and people, attempts to replicate the Buschberghof are bound, at least in part, to fail.

*2002 update by Caroline Whyte*

Since 1996, the Buschberghof farm has had to deal with a number of problems, which were outlined in an e-mail from Wolfgang Stränz in November 2002. The first problem is what he describes as "fluctuation of the farmers". Tobias the herdsman left for Ireland, his successor, a Swiss man, had to give up because of psychological problems, and the current herdsman, from the Netherlands, will leave in spring.

Meanwhile, Stränz writes, "Christina [Groh] gave up the job in the dairy and left the farm after ten years feeling burned out by too heavy work. She was replaced by a cheese maker from Southern Germany who already left the farm as well. Now the dairy job is done by three women, but unfortunately none of them feels completely responsible for what they do, so the quality of the products have suffered a bit."

He comments that "my impression is that it is very hard to find people with sufficient professional and social skills to fit into a group of farmers/gardeners being already there." These people must not only work together but also understand each other extremely well, "because that farm is to be considered as an organism. The conscience of the herdsman must not end at the end of the milk pipe into the dairy, because the way he treats his cows has the same impact on the cheese as, let's say, the processing temperature making the cheese, and on the dung being taken out onto the fields."

A second problem is with finding new members for the community. This has financial implications. Stränz explains that "when people leave the community (mostly for personal and family reasons) they need to be replaced by others taking their financial burden. But every year it is hard to find new members." He speculates that there are least two reasons for this:

"Those members who had founded the community have grown older. Many of them gave up their membership because they could not stand their childrens' quarrelling about the food from the farm. Those remaining had lost their contacts to the most interesting target group - families with small children - because they grew older, and getting contacts in the kindergarten or their childrens' schools is impossible now because the children eventually already had left their homes."

The second reason is that, although the founders generation of the community had built up a very effective system, new members perceive that they are simply being told what to do and think rather than developing new ideas for themselves. Stränz explains that "they unfortunately do not have to develop these ideas, they have to acquire them. And these ideas are passed on like old fairy tales, being told by the grandfathers of the community. To reanimate these ideas is a major task when new members arrive and it has to be done in a convincing manner."

The Buschberghof's website is at <http://www.buschberghof.de/Seiten/wgbinhalt.html>. It's in German but will soon have French and English sections too.

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It was at this point that things went wrong. So far, the group had merely had a three-year lease on the land at Indian Line Farm with the option to buy. As the third season drew to a close, everyone was keen that the option should be taken up and a valuer was called in to say what the price should be. "He fixed a fair price for the land but put a derisory figure on the barn, saying that nobody had any use for barns in this area any longer" Van En says. "But the point was, the group had a use for it. They were packing everything on these tables here and the root vegetable store was there at the back. As you've seen, it's a good solid three-storey building, much better built than my house."

The group would not improve on the valuer's figure, so Van En refused to sell and the group bought another site for their operations, on the other side of Great Barrington. She continued subscription gardening at Indian Line Farm in 1989 and 1990 with a new head gardener until her work in promoting the CSA concept through the United States became so demanding that she had to give one or the other up. So Indian Line is mostly hayfield and pasture again, although the garden plot is rented to an organic grower and the barn may be used for a community-supported brewery. This scarcely matters, however, because the system that Robyn Van En, Jan Vandertuin and Hugh Radcliffe established there lives on, and at the end of 1995 there were over 600 community-supported horticultural or agricultural operations involving 100,000 people in the United States alone, taking several different organisational forms and producing a wide range of products. Even city-dwellers participate, contracting with a grower in the country to produce grain, meat, fruit, vegetables or milk for them.

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2002 update by Caroline Whyte

By the end of 2002 there were over 1000 CSA-type organisations operating in the US. Robyn Van En continued her work with the CSA concept until her sudden death in January 1997.

Community Supported Agriculture of North America has now established the Robyn Van En Center for CSA Resources, which "offers a variety of services to existing and new CSA farmers and shareholders nationally". These services include technical assistance, links to existing CSAs and information about events and conferences. The Center's address is Wilson College, Fulton Center for Sustainable Living, 1015 Philadelphia Ave., Chambersburg, PA 17201, tel +1 717 264 4141 ext 3352, fax +1 717 264 1578, e-mail [info@csacenter.org](mailto:info@csacenter.org).

Indian Line Farm has meanwhile been converted into a Community Land Trust, with assistance from the neighbouring Schumacher Society, and is now being farmed organically again (see section on Community Land Trusts.)

Other organisations:

Local Harvest is a Web-based directory of local farmers, farmer's markets and other sources of sustainably-grown food in the US.

*Short Circuit* by Richard Douthwaite: Chapter Six 39

Community Alliance with Local Farmers is a US non-profit organisation which seeks to build a movement of rural and urban people who foster family-scale agriculture. Their website contains links to publications and information about their programmes.

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The idea entered Britain in 1990 when a Scottish softfruit grower, John Butterworth, read an article about it in the excellent Canadian rural life magazine *Harrowsmith*.

Butterworth had been selling some of his organic raspberries and blackcurrants to Dave Bellingham, a retired naval electrical engineer, and his wife Eileen, who owned the two-acre walled garden at Sundrum Castle about five miles from Ayr where they were producing free-range eggs and growing vegetables which they sold from a van.

The van round wasn't doing particularly well and the Bellinghams felt they were getting insufficient output from the walled garden to enable it to do so" Butterworth says. "They asked me if I could help improve production and I, in turn, approached a friend, Carol Freireich, a long-standing organic gardener and the four of us formed Ayrshire Organic Growers as a workers' co-operative. We wanted to devise the best marketing system possible and the *Harrowsmith* idea of local people buying shares in the operation of the farm seemed very attractive."<sup>55</sup>

By sending out leaflets to friends, van-round customers and local members of Friends of the Earth, they found 25 families prepared to subscribe £180 each for their vegetables, paying either in a lump sum or in three £62 instalments. The new system began in the spring of 1991 and a subscribers' meeting was held that autumn to review progress. The feedback was that, despite teething problems, the project had been well worthwhile. The main disappointment seems to have been the failure of the mange-tout pea crop due to faulty seed. Otherwise, the burning issues subscribers discussed were how many outer leaves should be left on the lettuces and whether seven pounds of potatoes a week was too little or too much.

Forty subscribers signed up for the 1992 season, including all but one of the previous year's families, and 53 varieties of fruit and vegetables were grown. This huge range greatly reduced the risk of the co-op being unable to meet its delivery commitments due to crop failure, which was just as well because a gale blew the plastic cover of a polytunnel away and a cold and wet early spring, a dry late spring and early summer and a wet autumn caused the potatoes and the onions to be affected by rot and some vegetables to crop badly. It also points up a big difference in the approaches adopted at Indian Line Farm and at Sundrum.

At Indian Line, all the produce belonged to the subscribers because they had hired the gardeners, rented the land and provided the equipment. In the event of crop failure, the subscribers took all the risk. They had no guarantee that there would be any relationship

between the shop price of vegetables and the total value of those produced on their behalf because there was no-one involved who was able to give it. At Sundrum on the other hand, the operation is owned by the co-op, not the subscribers, and getting families to pay up front for their vegetables is little more than an efficient and effective financial and marketing tool. Under the agreement signed annually between the co-op and its subscribers, the value of each week's delivery is calculated using the prices of non-organic fruit and vegetables that week in the Safeway supermarket in Ayr where Eileen Bellingham works part-time as a cashier, and the co-op guarantees that, if the total value of its deliveries for the year falls below £170, it will refund the difference. When it has to supply poorer quality produce because of weather conditions or pest damage, it reduces prices below the Safeway figure.

"The customer does share the risk in two ways" Butterworth says. "Firstly, we only guarantee £170-worth of produce, not £180. That's not a great difference but it does establish the principle that the farm is subject to risk and that the shareholders bear some of it. Secondly, we don't guarantee the exact quantities of each crop that people will get and it's certainly possible that at some times of the year they'll be fed up with certain crops, runner beans for example."

Nevertheless, Robyn van En would not regard Sundrum as a true community garden. She thinks it important that growers be free from economic pressures if they are to do the best job they can. This means that the financing of the crops should be the responsibility of the consumers who should also carry all, or almost all, of the risk. "Paying a farmer or a gardener a guaranteed income establishes his or her professional status" she says. "During the first year at Indian Line Farm, a freak thunderstorm dropped eight inches of rain in three hours. The mixed cropping and the raised beds meant that the winter squash was the only real loss. It was harvested prematurely and members cooked or froze whatever they wanted. This translated into a \$35 loss on each share purchase but it would have been a \$3,500 loss on a family farm."

In cash terms, about two-thirds of the Ayrshire co-op's produce is grown in the walled garden at Sundrum and in two polytunnels, with maincrop potatoes and carrots being bought in from another registered organic grower in the area. This meant that its produce was effectively coming from only five or six acres "We don't even have a tractor and borrow one when we need to" Butterworth told me in early 1995, although it bought one later in the year. "At present, the operation isn't even generating a full-time job - we're all part-time - but that will come." Shortage of growing space was becoming a problem and the co-op was planning to set up a land trust to acquire fifty acres near the walled garden to produce organic milk and meat and to ensure that only organic food had been fed to the animals responsible for the manure applied to the garden. This is highly desirable because, amongst other things, drugs such as Ivermectin which are used to treat cattle for intestinal worms, lice and ticks are excreted by the animals and go on killing organisms living in the soil for a long period before they are broken down.



The co-op holds two meetings a year for subscribers, one in the winter so that they can help shape planting plans and give their reaction to the previous year's performance, the second in the summer so that they can see the garden and meet each other socially. Beyond this, most subscribers' input into the system is negligible although one couple provides a day's labour each during July and August and has offered a low-interest loan while another customer, who is in the pump business, has given an irrigation system.

The co-op had 80 customers for its 1995 season and had lost only two of the original participants. (Include list of expected vegetables put out by Sundrum) Its subscription rate was still £180 for those able to collect from the garden but for those who could not, a £20 a year delivery was charge had been introduced which could be split among customers sharing the same drop. After four seasons, Butterworth remained highly enthusiastic about subscription gardening: "We have no waste. We don't have to conform to any prepacked sizes for absurd cosmetic standards. We use minimum packaging which is all re-used, not recycled, and transport costs are kept to a minimum. From a financial standpoint, we've a guaranteed market from one year to the next."

At the end of 1995 there were three or four other subscription farms or gardens operating in the UK according to Eric Booth of the Soil Association but none was a true community effort on the American model. In addition, some fifty or sixty organic growers were using the box system under which a household agrees to take a box of vegetables, the contents varying according to whatever is in season, for a fixed price each week but does not pay in advance. Amongst the pioneers of this system were Tim and Jan Deane of Northwood Farm, Cristow near Exeter, who have used it they found out the hard way in 1991 that they were not going to be able to survive financially by growing ten acres of organic vegetables and selling them on the wholesale market.

"We had begun packing a few individual orders in addition to our wholesale commitments" Jan says , "but it didn't take us long to realise that this was not the road to prosperity either. Despite the higher price, the value of the individual orders was generally too low to pay for the time it took to make them up, weighing out small quantities was extremely tedious, and people would telephone their orders at highly inconvenient times."<sup>56</sup>

So they sent out a letter to friends, neighbours and existing retail customers offering to pack and deliver a weekly box of mixed vegetables at a fixed price and twenty households signed up. By the end of the season, over forty boxes were going out and when they circulated a questionnaire, they were surprised to find that many people appreciated the convenience of not having to decide what vegetables to buy. From their own point of view, the system overcame most of the disadvantages of packing to order, particularly as they could save time by estimating quantities by eye.

Today, they offer three sizes of box, £3.50, £4.50 and £5.50, and allow their 200 customers to say what types of vegetable they would prefer not to receive. "We make it clear that we can't guarantee to make substitutions but in practice it's usually quite easy to

do" Jan says. Some customers act as drop-off points so that several boxes can be delivered at the one stop. The boxes are reusable and each carries the customer's name so that anyone who has failed to return two or three can be chased up.

In 1993, the couple had their worst growing season in the ten years they had been in business and had to buy in produce from other organic growers, severely eroding their income. However, if they had had to rely on the wholesale trade to distribute their produce they reckon they would have been out of business. "Our customers often take the trouble to tell us that they appreciate the food we produce for them" Jan says. "When you are out in the leek field and you can no longer feel your fingers and toes and the rain is seeping through your waterproofs, that means a lot. It's called job satisfaction."

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*Jan 2003 update by Caroline Whyte*

According to the Soil Association, by 2001 there were over 200 box schemes operating throughout the UK. Judging for the box scheme category of the Association's organic food awards was actually carried out at Northwood Farm (the Deanes' farm) that year, which had 85 box scheme customers at that point. The University of Essex's Centre for Environment and Society website includes an interesting online essay by Jan Deane on the Deanes' experience with their farm.

Following Dave Bellingham's death in 1996 the Ayrshire Organic Growers ceased to operate, although the walled garden is still used to grow organic vegetables. There is another box scheme in the area now, however, called Stair Organic Growers, which seems to be doing well.

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Perhaps the most ambitious community-supported agricultural project in the British Isles is the 13-acre garden established by the Philipstown Trust outside Dundalk in Ireland. The Trust is the brainchild of Ollan Herr, who set up and runs a business making sluice gates and similar water-way equipment in the technology park attached to the town's regional technical college. He formed the Trust to work towards local sustainability in 1992 immediately after the Earth Summit in Rio. "Even before the world's leaders met, we knew that nothing would be done and we would have to do any work ourselves" he says.

Herr believes conventional farming is unsustainable and the Trust has the encouragement of a gradual change-over to organic agriculture among its wide-ranging objectives. However, he admits that there were personal reasons for making subscription gardening its first project: "I wanted my family to be able to eat organic vegetables and I knew that I was never going to be able to grow them myself. I was buying them from a friend, Mark Deary, who was growing them and selling them from a van and I was worried that if Mark got married, which didn't seem unlikely, his wife would suggest that he went back

to teaching so that they could have a decent income. So to ensure that Mark could earn a decent living as a grower I began to think about what could be done."



*Ollan Herr and Mark Deary of the Philipstown Trust, Dundalk*

As neither Herr nor Deary had heard of the CSA movement in North America or the subscription gardens in Britain, the details of the Philipstown project were developed from scratch. "This had the advantage that we could evolve something that was exactly right for local conditions but the disadvantage that we were never able to say to the Trust's board, 'Look, it's working over there'" Herr says. Deary adds: "I hadn't heard the term CSA until this September [1994] and when I began using it, a friend told me that in her profession it stood for child sex abuse." He learned his skills as an organic gardener by being a WWOOFer - a Willing Worker On Organic Farms - which entailed moving from holding to holding and working for his board and lodging and perhaps a little pocket money besides. "I really learnt what a good day's work involved" he says. John Butterworth says that WWOOFers give

the Sundrum co-op substantial help.

Finding land for the garden took over a year. "People said it wasn't possible to make a living on a smallholding of, say, ten acres. We weren't being taken seriously" Herr says. But in November 1993, they met a wealthy landowner who was prepared to rent them a derelict barn, farmyard and cottage plus three fields which had previously been used for grazing horses and had never been chemically farmed. "That meant that we could go straight into organic production without any transitional period. We were lucky to get it" Deary comments. "The rent is £2000 a year, so we got no concessions."

A leaflet was printed which set out the aims of the Philipstown Trust and outlined the garden project. Part of it read:

"[This] is an invitation to membership of a community farm from which you will enjoy freshly-grown vegetables in abundance for 8-9 months of the year.....We hope to attract 120 members in year one, each buying £208 worth of produce...An August delivery might include tomatoes, peppers, peas and beans, potatoes and cabbages. A mid-winter delivery would have sprouts, leeks, cabbages and carrots. We will be growing more unusual varieties such as kohlrabi and corn, too."

The £208 subscription was reckoned to provide sufficient vegetables for a family of five and half-shares were available at £104 for smaller households. Prospective members were asked to pay half their subscription in advance and the rest by monthly banker's order, and also to make the project a interest-free loan of £100 (£50 for half-shares) for three years to cover its start-up costs. As if that was not enough, everyone was also asked to

fork out £5 for a year's Trust membership. "To qualify for public funding [the Trust] must be clearly seen as a community-based organisation" the brochure said. In any case, it added, the costs of newsletters, copying, and postage had to be met.

Ambitious? Yes. Over ambitious? Well, most of the Trust's board feared that it would prove to be so. Herr and Deary sold twenty memberships quite quickly and bought polytunnels, a tractor and other equipment with the money plus a £7,000 overdraft which Herr had personally guaranteed at the bank. It was only after they were fully committed - some would say over-committed - that another forty subscriptions came in. "It helped that we were both local and our families were well known in the town" Herr comments.

Help from official bodies was also important. The Irish Government's horticultural development agency, An Bord Glas, gave £1,500 and the government's local employment creation agency, which originally said that it could not help an agricultural project, eventually came up with a £3,000 grant.

Production in the first season went remarkably well. This was in large part due to the long hours and great effort put in by Deary and his colleague Aidan Faughy. "Aidan complements me, because he's good with things like the tractor" Deary told me towards the end of November 1994 when I bumped into him in Dublin "We've been working at least a sixty-hour week and it's only now that I've got my old interests back and been able to think about other things." Nine of the thirteen acres had been brought into cultivation, membership had risen to 105 and £9,000-worth of vegetables had been sold.

As a result of donations and the grants, the financial results - a loss of just over £4,500 after non-capital costs of £27,000 - were, for a start-up, reasonable, too, although the shortfall would have been greater had Deary and Faughy been properly paid. They got £140 a week each, which Herr realised was far too little. "Mark runs the farm while I look after the financial side. He's worth a lot more than he's being paid. We've got to be able to pay him at least the average industrial wage" he told me early in 1995, adding that, with just over 100 families signed up for the new season, he was optimistic that things would go really well.

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#### PANEL: SOLVING THE LAND PROBLEM

A serious difficulty for many community projects is getting affordable access to suitable buildings and land. Robert Swann and Susan Witt of the Schumacher Society in the United States believe that this problem is part of a much larger one and that it will not be possible to build satisfactory self-reliant local economies unless land ownership ceases to be a legitimate arena for financial speculation.

They argue that if land is treated as an ordinary commodity that can properly be sold to the highest bidder, any wealth generated by a community will tend to be absorbed by unproductive property investments rather being used to increase local self-reliance. Witt writes in a Schumacher Society position paper :

When a region has excess capital, that capital can work to draw out the imaginative and entrepreneurial skills of its people and thus generate new businesses producing goods and services once imported from other regions....When the capital is tied up in land, however, the local economy chokes up. Credit for the small business owner tightens. The region loses its diversity, which is the basis of a more sustainable economy and of a more environmentally-responsible business sector<sup>57</sup>.



Community land-trust pioneer  
Bob Swann, May 1992

As mentioned in Chapter Three, Swann once worked with Ralph Borsodi, a leader of the back-to-the-land movement in the United States in the 1930s. In an essay, *The Possessional Problem*, which provides the intellectual foundation for most American community land trust thinking along with Henry George's 1879 book *Progress and Poverty*, Borsodi makes a distinction between things that it is morally correct for someone to own and those that should be held in trust. For him, it is moral to treat things one grows or makes as one's private property and to buy or sell them, but the land itself and the Earth's resources should be held in trust and their use regulated to benefit this and future generations.

"None of the governments which now claim sovereignty over the Earth can vindicate in rational and moral terms.... the issuance of title [to land] 'in fee simple absolute'; therefore, we must face the problem of how land and other resources should be allocated.....Since capitalism takes private ownership for granted, it ignores both the question of its moral validity and its economic utility. As I see it, capitalism is from beginning to end a rationalization. To justify having everything privately owned, including what should be held in trust - the airwaves for instance, or mineral resources - its proponents have to accept all sorts of qualifications of the doctrine and all sorts of government intervention and regulation of business operations."

Many people have thought along similar lines, of course, and gone on to suggest that land and mineral resources be nationalised. This suggestion seemed as misguided to Borsodi as it does to Swann, who thinks that the centralised management of state-controlled land has been as big a disaster as the almost totally unregulated dealing in land on the open market. Instead, Swann wants to see land and resources owned by democratic community organisations whose membership would be open to any resident of the district or bio-region. He suggests that one third of the directors of a trust should be elected from amongst the leaseholding members - that is, those who are using the land the trust owns - one third from non-leaseholders - in other words, the wider community - and that the final third be professionals such as land-use planners or lawyers appointed jointly by the elected directors so that the trust can have the benefit of their expertise.

In 1967 Swann and Borsodi set up the International Independence Institute to promote community ownership of land and to support Vinoba Bhave and other workers in the *Short Circuit* by Richard Douthwaite: Chapter Six 46

Gramdan (Village Gift) movement who walked from village to village in rural India appealing to landowners to give part of their holdings to community organisations to be leased to landless labourers to farm. Many landowners responded to the campaign and the organisations set up to administer the land they gave were the forerunners of the community land trusts in the United States. Swann then worked with Slater King, a cousin of Martin Luther King, and New Communities, a group from Albany, Georgia, to set up a land trust for African-Americans in the rural South who were unable to get land to farm and were consequently forced to migrate to the northern cities to look for work. With donations and loans, New Communities purchased 5,000 acres and leased it out as individual homesteads and farms for co-operatives using the legal structure devised by the Jewish National Fund which began to acquire land in Palestine at the turn of this century and now owns 95% of Israel.

Not all went well however. "Through a series of tragic deaths, much of the original leadership was lost and promised grants fell through" Susan Witt says. "The inventor of xerography had promised a million dollars but died suddenly before signing the cheque and his wife gave his fortune to the California Zen center. As a result, New Communities took on more debt than was wise to purchase the land and were unable to repay the mortgage. They lost the property several years ago. But although the first land trust failed, it started a movement."

Swann set up the Institute for Community Economics in Cambridge, Massachusetts, in 1977 to promote land trusts and the idea of social investment. "By 1980, Bob and I were the only staff. I worked in a factory in the mornings to support us and then went to the office in the afternoon" Witt says. "That spring we were asked to the Berkshires to start a community land trust and were talked into staying. The prospect of living and working on a community land trust rather than just telling others to do it was very appealing to us". The new trust, the Community Land Trust in the Southern Berkshires, attracted some donations, took out a loan and bought a ten-acre apple orchard outside the small town of Great Barrington the following year. It then leased out four house sites on part of the property, one of them to Witt and Swann for a house they built themselves, and has since used the lease fees to pay off the mortgage.

"The Trust leases the rest of the orchard separately to a farmer who bought the existing trees and also owns the new raspberry canes, asparagus and fruit trees he has planted" Witt says. "No farmer could have paid as much for the orchard as was available for it on the housing market and, if it had not been bought by the Trust but divided up into four one-house properties, it would have gone out of horticulture. The lease fee the farmer pays is minimal so the Trust has secured an affordable source of food production in the region."

If the farmer or the people who have leased house sites wish to move on, they can sell whatever they have done on the property. "With a trust, you don't own the land but you do own the house and any improvements such as planted trees" Swann says. "However you cannot necessarily sell them at market value. An owner who wishes to sell is obliged to offer them to the trustees who are only obliged to pay replacement value."

Since buying the orchard, the Trust has acquired two other properties. One is an old house on the bank of the Housatonic river in Great Barrington which has been converted

into office space for several community organisations. The other is Forest Row, 21 acres of woodland on the edge of the town. Most of this is to be preserved but five acres have been used for eighteen moderately-priced houses, each of which was designed and built specifically for the site lease holder. "Even with careful planning and the unit holder's participation, the Trust was unable to keep purchase costs as low as it would have liked" Swann says. Accordingly, he helped set up a charity, the Fund for Affordable Housing, which used donations to subsidise the construction of two of the houses at Forest Row so that they were available to a lower income group.

Despite these successes and the establishment of over a hundred similar land trusts throughout the United States, Swann and Witt are disappointed at the rate of progress. "Unfortunately, the accumulation of land in community land trusts has been very gradual" they write in the position paper. "It is true that each new piece of land in a CLT has its own story of hope and good work, yet there is no broad movement to decommoditize land. Environmentalism is the new religion of our age, but it is only a Sunday morning religion... [because] we still reserve the right to sell the land we own and care for to the highest bidder. We have yet to fully imagine and embrace a culture in which land use is allocated by social and environmental contract rather than by checkbook."

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#### *2002 update by Caroline Whyte*

The Schumacher Society has been involved in an innovative project to keep Indian Line Farm as an community-based, working farm in perpetuity. The farm has been purchased with the help of community donations, and a Community Land Trust is being established there. The trust will hold title to the land, but the buildings and farm improvements will belong to two young organic farmers, Elizabeth Keen and Alex Thorp, who have been farming the land for the last two seasons. They will have a 99-year lease on the land to provide security of tenure.

Since the farmland includes valuable wetlands which provide a home for rare species, the Nature Conservancy now holds an easement on the property to permanently limit future development. If in the future the current farmers wish to sell the farm, the CLT will have the option to buy it at no more than the then-current replacement cost and resell it at the same price to another farmer, thus ensuring that the farm remains affordable and that the value of the land is not included in the farm price. Susan Witt explains that "[this provides] a community way to subsidize the land costs while farmers purchase buildings and other improvements".

Detailed information about the structure of this partnership is available online at the Schumacher Society's website , and model legal documents for this type of partnership are in preparation and will be available shortly from the Schumacher Society.

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There are very few land trusts in Britain and Ireland. One of the oldest must be that set up on the island of Lewis by Lord Leverhulme, a founder of the Lever Brothers soap

company which eventually merged with a Dutch margarine company to become Unilever. Leverhulme bought Lewis in 1917 and prepared ambitious plans for, among other things, developing the island's fishing industry to supply his Mac Fisheries chain of fish shops. However, his ideas ran into fierce opposition from a powerful group of locals, and by 1923 he was ready to give up. In order to wind up his affairs, he offered to give his tenants and crofters, free of charge, full freehold titles to the land they were renting from him. For various reasons, few of them took up his offer, but Stornoway Town Council accepted the deeds to the town itself, the parish of Stornoway and a small part of a neighbouring parish, and the Stornoway Trust was set up to administer Leverhulme's former property. Apart from land it has since sold outright to the council, the Trust has maintained the freehold of everything it took over. Only those who live on its property and whose names appear on the parliamentary Register of Electors have the right to vote in the elections for the ten positions on its board of trustees and at present, the trustees, all of whom live locally, have a policy of giving the Trust's income from rents, interest and quarry royalties away to local charities and employment creation schemes. Recently, the Trust has been granting long leases to quarter-acre house sites for only £50.

Three other land trusts have been set up in Scotland over the past few years; many more can be expected to be formed before the end of the decade as a result of an announcement early in 1996 by the Secretary of State for Scotland, Michael Forsyth, that the government was prepared to transfer its 260,000 acres of state-owned crofting estates free of charge to trusts if the 1368 crofter-tenants could show that the new bodies would not need a continuing financial contribution from the public purse. Indeed, the main reason for the offer was that the Exchequer was making a loss on running the estates - largely, a Scottish Crofter's Union survey had shown, because of the Scottish Office's bureaucratic procedures. Another factor, however, was that crofters in Assynt, Melness and in Borge on the island of Skye had shown that trusts could take over holding from private landlords and manage them more efficiently.

'We had a first-class landlord. We regarded him as a gentleman and a friend,' John MacKenzie, who played a key role in establishing the Borge trust, told me. 'The family had charged the same rents - £5 a year for fifteen or sixteen acres plus the right to use common grazing - from the time the crofts were first settled in 1906.' As a result, there was little incentive for the crofters to take over the property. What changed the situation was the Crofter Forestry Act, which gave them the right to own any trees they might grow on their holdings. Previously, trees had belonged to the landlord. 'Our landlord, Major J.L. MacDonald, is a Skye man and speaks Gaelic, although he made his fortune in London as a financier. He was fiercely opposed to the Act, and as we wanted to be among the first crofters to take advantage of the grants available for afforestation because sometimes the early birds get freebies from people anxious to make their schemes work, the idea emerged that we should buy him out'.

After some delay, MacDonald said that he wanted £40,000 for the 4,000 acre property. much more than the £14,000 that the crofters could have expected to pay if they had fought the purchase through the courts - in a previous case, crofters had been able to purchase their holdings for fifteen times the annual rent. 'If the Major had been a bad landlord or an absentee one, we would have taken pleasure in fighting him, but we offered £20,000 and we heard in June 1993 that he had accepted. The whole thing was



very amicable. We gave him back the shooting rights out of goodwill, not that there's much to shoot around here anyway. We got a short-term bridging loan from the Highland Fund to pay him and the local enterprise company paid our legal costs'.

Although by law they could never have been evicted from their holdings, actually owning them, albeit indirectly through a trust, seems to have made a big psychological difference to the people of Borge. 'It gives a feeling of freedom that no Act of Parliament could ever give,' MacKenzie says. In fact, holding the whole property jointly with their neighbours has given them something that the private ownership of individual parcels would not: the challenge of developing it as a whole. 'It would have been easy to have sat back and said "Now we have what we wanted" and just carried on working at our daily occupations,' he continues. 'But the ownership of the land brings new responsibilities and new challenges. How could we as landowners protect the environment, improve the grazings and also generate some income from a source other than grazing animals?'

The crofters' first joint project was to plant a fifty-acre woodland of mixed native species along one of the property's boundaries. 'It will soon provide shelter for sheep and cattle and food and shelter for wildlife,' MacKenzie says. 'More forestry is at the planning stage on an area of the hill that is not of importance to the grazing stock. Now that the ownership of the crofting lands has passed to us it is our responsibility to make sure that people stay on the crofts and that this crofting estate is a pleasant place to live in and provide a suitable environment in which to raise children.'

The psychological change that the new form of land ownership has brought about was mentioned in an editorial in the March 1996 issue of *The Crofter*, a monthly publication of the Scottish Crofter's Union. 'If you know Crofters who are now part of a trust, one of the things that must strike you is their confidence, and the respect with which they are now seen by others, and indeed themselves. They have gone beyond the barrier of feeling that they as crofters are not capable of running their own affairs. They have proved that as crofters they can get on sufficiently well with each other to co-operate in the management of their estate. They have a pride in their achievement which sustains them through the unquestionable challenges that confront them in this exciting new era of land ownership.' One aspect of the new confidence is that crofters from Borge and Assynt have collaborated with Highland and Islands Enterprise, the development agency from the area, and the government's Crofter's Commission, to set up the Crofting Trusts Advisory Service, which helps crofters on other estates set up land trusts to take over them too.

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### *2003 Update on Community Land Trusts in Scotland by Caroline Whyte*

#### *Borge and Annishadder Township*

Alaistar Nicolson, secretary of the Borge and Annishadder Township, described in a January 2003 e-mail the changes that have taken place there in recent years:

"Since 1996 another Crofter Forestry scheme amounting to 60 hectares has been established by the Grazings with the approval of the Township and a third scheme of around 120 hectares is planned for 2003. All schemes are predominately native broadleaf with some Scots Pine and areas of natural regeneration, and should enhance the area and provide additional income for the Crofters involved."

"Several directors provided input into the Duthchas pilot project that operated in the Trotternish area of Skye between 1998 and 2001." (This project was funded by the EU as an experiment in economic planning. The community, one of three in Scotland involved in the scheme, was asked to come up with a plan for the development of the Trotternish area, with an emphasis on preserving the area's ecology. Detailed information about the project is online at [www.duthchas.org.uk](http://www.duthchas.org.uk) )

"We also collaborated with the local Housing Association with a view to providing new local housing within the Township, [though] unfortunately due to circumstances outside the control of the Township this has not been able to proceed. In addition, the Township has been able to pay back the Highland Fund loan."

"As for future plans, we are keen to work with the wider community on anything that will enhance the economic, social and environmental aspects of our area. The main drawback is time to research and take ideas forward, but I suppose that now that we own the land we can take our time to consider future developments."

The Borve and Annishadder Township's website is at [borvetownship.community.sitekit.net/welcome.asp](http://borvetownship.community.sitekit.net/welcome.asp); e-mail is [borve@sale.prestel.co.uk](mailto:borve@sale.prestel.co.uk).

### *Assynt Crofter's Trust*

The Assynt Crofter's Trust has also achieved a great deal in the last few years. Bob Cook, the Trust's secretary, outlined the Trust's achievements for me in a January 2003 e-mail. 15 new directors were elected by the townships in the course of the past decade, "bringing new skills and enthusiasm to the Board". There have been 13 new entrants to crofting in 7 townships in the area, and the crofters have co-ordinated the medical treatment of their livestock and are now exploring the idea of growing new crops such as Bog Myrtle, a herb with medicinal properties.

39% of the Trust's income each year comes from brown trout fishing, and 8 boats have been bought and hired out to anglers. The Trust also holds 800 hectares of native woodlands which are newly planted, and carries out £193,000 worth of contract forestry work in the parish. Cook explained that "the area has to be deer fenced, the ground then prepared for planting, the trees are then planted and later each tree is individually fertilised. This is very labour intensive work and carried out by locally recruited squads." The forestry work provides the equivalent of 3 part-time jobs per year.

The Trust is planning to build four new houses for rent at an affordable level over the next year, in conjunction with Albyn Housing (a housing trust). Cook writes, "They will never be for sale and therefore will form the nucleus of a housing stock on the estate. If this is successful we hope to build more." The Trust is also negotiating with North of Scotland Water, the local utility, to install a Reed Bed sewage system, which will be

about the size of a tennis court and should easily cope with the sewage treatment of the four original houses as well as the four new ones, with capacity for expansion.

Additionally, the Trust is exploring the use of hydro power, having set up the Assynt Hydro Ltd in 1999. A £500,000 micro hydro scheme has been running now for more than two years. Initial plans for it met with considerable resistance from Scottish Natural Heritage, an environmental group, because of fears that it would adversely affect the habitats of a pair of black-throated divers and a colony of fresh water pearl mussels living in the area where the turbine would be built. However, the crofters came up with an innovative water level control system which hopefully will ensure that the habitat is preserved, and the SNH agreed to the project. Cook writes, "It is a 200 MW scheme and the regeneration which has taken place around the site has completely hidden the construction. It has had virtually no impact on the environment." The scheme will revert to full ACT ownership in 2015. More information about the scheme can be found at the Trust's website.

The Trust's activities have enabled it to make a profit annually, which is reinvested in the community. It supports a part-time employee. Much of the administration is done by a team of volunteers, who Cook says work an average of 4,800 hours of voluntary time annually - "the equivalent of 2 full-time jobs or some £36,000 investment each year".

#### *Other Community Land Trusts in Scotland*

There have been numerous new developments in Scotland over the past few years with regard to community land trusts - in fact, over 90 communities have now set up land trusts with the help of HIE. Alastair Nicolson, Community Land Advisor at HIE (and no relation to Alastair Nicolson!), explained in a January 2003 e-mail that "land reform legislation in the form of the Land Reform (Scotland) Bill has raised the profile of this type of land ownership. Following the enactment of legislation early this year we expect many [more] communities to take advantage of the opportunities it will present for them."

This increase in community ownership has come about despite the fact that none of the communities involved have bought or taken over government-owned estates - notwithstanding the UK government's announcement in 1996 (mentioned in the original text) of its intention to transfer at least some of its site-owned crofting estates to communities. Some communities have bought land from the the Forestry Commission, but the bulk of purchases were actually from private landowners.

A good explanation for the apparent lack of interest in government-owned estates can be found in a Web article that describes case studies of community land ownership in Scotland. Lorna Campbell writes that:

"initially, there was a flurry of interest from a number of crofting townships, and by mid-2000, CTAS [the Crofting Trust Advisory Service] had attended 22 open and township meetings, provided nine additional advisory visits, assisted with legal fees for four cases and provided assistance with eight feasibility studies. Two of these were in the Uists, three in Sutherland and three in Skye.

"However, crofters usually face a dilemma once the feasibility study is completed and they sit down to look at the benefits that would accrue through direct ownership...Crofters' reasons for maintaining the status quo have centred around a number of factors, namely: the lack of perceived benefit from transfer of ownership; satisfaction with Department management and the Secretary of State as a landlord; differences of opinion between the townships involved; and, in a couple of cases, the feasibility study indicating that it would not be financially advisable for the crofters to take ownership as a trust.

"There is also some doubt about whether such transfers could proceed 'at no consideration' as originally intimated by Michael Forsyth, and the one community that is interested in owning a Department estate is currently in negotiation on this point."

Clearly though there has been much success with community purchases of privately-owned estates. In June of 1997, HIE set up the Community Land Unit (CLU), intended to support community land initiatives by providing advice and financial assistance. According to HIE's website, the unit's aim is "to increase the role of communities in the ownership and management of land and land assets, and the sustainable management of these resources for the benefit of the community". Nicolson writes that "all of the acquisition projects supported by the CLU have had the benefit of a community consultation / feasibility study and business planning process to make sure they are viable in the long term." HIE also has a Community Energy Unit whose purpose is, Nicolson writes, "to support community renewable projects by giving advice, and through financial support for feasibility studies etc."

Nicolson adds that "the funding available for community buy-outs has been augmented with the establishment of the lottery funded Scottish Land Fund. This grant programme is actually administered by us in the CLU, but decisions on funding are made by the independent Scottish Land Fund Committee. This programme has made available £10m for community land purchase and development, across rural Scotland."

Examples of the newer trusts that have been established with the help of HIE include a Community Forest Trust at Abriachan, which is the first of its kind in the UK. The 534-acre forest had previously belonged to the Forestry Commission, and was bought in 1998 by the 120-member community of Abriachan. The Trust's goals include creating new jobs, re-forestation of the area with native species, and improving access to the woods and hills, which attract a lot of walkers as part of the Great Glen Way. In fact, the issue of access rights was what triggered the community's interest in forming a Trust. More information about its activities can be found at [www.members.tripod.com/abriachan/index.html](http://www.members.tripod.com/abriachan/index.html).

Another recently established trust, The Isle of Eigg Trust, was formed in 1997 and holds the entire island as its property. It is a partnership between the residents of Eigg, the Highland Council, and the Scottish Wildlife Trust.

The Trust has organised the establishment of a new Pier Centre, "An Laimhrig", which contains a shop/post office - whose predecessor had been closed because it couldn't keep up with Health and Safety regulations - in a new building which also includes a crafts co-op and cafe, as well as the Trust's office. Most of the energy needs of the building are met by a micro-hydro plant that was completed in 2000. The Trust also has a subsidiary construction company which employs a team of renovators to help restore

*Short Circuit* by Richard Douthwaite: Chapter Six 53

housing stock on the land, in order to improve the quality of the tenant's accommodation. In addition, the Trust manages the island's forest area with the goal of encouraging regeneration of native species. Its impressive website is at [www.isleofeigg.org](http://www.isleofeigg.org).

Nicolson comments with regard to the Isle of Eigg, "A study is underway on the island to identify potential renewable energy solutions to meet the power requirements of the islanders. The island, like its neighbours (Rum, Muck, Canna and the Knoydart peninsula), is not linked to the national grid. Knoydart, also the subject of a community buy-out, has recently upgraded its private hydro power station. This facility is also entirely owned by the community, and was upgraded using CLU grants, European grants and funding raised by the community."

Detailed information about community land trusts in Scotland and the roles played by CTAS and the CLU can be found at the Caledonia Centre for Social Development's website ([www.caledonia.org.uk/socialland](http://www.caledonia.org.uk/socialland)) and, in particular, Lorna Campbell's article at [www.caledonia.org.uk/socialland/clu.htm](http://www.caledonia.org.uk/socialland/clu.htm). The CLU's own website is at [www.hie.co.uk/CommunityLand.htm](http://www.hie.co.uk/CommunityLand.htm).

The Scottish Crofting Foundation (formerly Scottish Crofters' Union), is located at The Steading, Balmacara Square, by Kyle of Lochalsh IV40 8DJ, tel +44 (0)1520 722891, fax +44 (0)1520 722932, e-mail [hq@crofting.org](mailto:hq@crofting.org).

The Social Land Ownership website "celebrates the size, diversity and range of patterns of common ownership that comprise the social land sector in various parts of the world". It includes detailed descriptions of some of the Scottish land trusts.

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But perhaps the most widely applicable form of land-trust in Britain is the Stonesfield Community Trust in the village of Stonesfield near Witney in Oxfordshire. This began when a freelance journalist, Tony Crofts, became concerned about the way outsiders were driving up rents and property prices and wanted to ensure that there were always affordable houses for young couples in the village so that the local school would stay open.



With two friends, a retired school teacher and the business manager of a successful local company, Solid State Logic Ltd., he set up the Trust and gave it a quarter-acre site he owned in the village to develop. Solid State Logic contributed by putting up £3,000 to cover the legal costs of forming the trust, registering the land transfer and preparing a planning application. "We got permission for four houses" Crofts says - he is now the trust's chairman. "That greatly increased the site's value and a bank

made a loan secured on the property to pay for building the first two houses."

Later, a granny flat was added to one of the houses and another was split into two flats, so the Trust now has six dwellings on the site. Then a second quarter acre site in the village became available and the district council gave the Trust a one-year interest-free loan of £80,000 to enable it to buy it. "We had a track record. We were the only village in West Oxfordshire that had built any affordable housing, even though the county council had offered to give planning approval for the use of farmland for it. They agreed to lend us the money within seven days. I cannot speak too highly of them" Crofts says. There are now five houses on this site, financed in part by Mercury Provident and the Ecology Building Society and in part by gifts and by private ethical investors, who lend their money at a fixed interest rate for ten years. "We advertised in *The Friend* [a Quaker magazine] for six weeks and it brought in about £85,000. Also, the Quaker Housing trust converted a £20,000 interest-free loan into a grant and attenders at the Witney monthly meeting made donations of £6-7,000" says Crofts, who is a Quaker himself.

"All the houses have been built and insulated to a very high standard so that they are warm and comfortable to live in" he adds. "They are designed for maximum solar gain and we'll put passive solar conservatories on four of them when we have the money. We are able to let them at below market rates to people connected with the village because of the donations and because local people have covenanted to pay a sum each year to cover some of the interest charges, which are very high in the early stages of a loan. We've never had any government money - if we had, we wouldn't have been able to build to the standard we did and we'd have never owned the houses. Because we are a charitable trust, the tenants have no right to buy the houses which will always belong to the village. When we get the loans paid off, we'll be able to bring the rentals down to council-house levels and still have a good income which we plan to use to re-boost social services here which the government has steadily cut back over the past ten years. We're moving towards becoming the Independent Democratic Republic of Stonesfield. We intend to be a standing reproach to the Government and the Treasury by showing that a high standard of social care is possible if you spend your money correctly. Devolution, local control and smallness are important to us."

Other villages had asked the Trust about how they could do something similar, he said, but none of them had been able to cope with the necessary fund-raising which was 'pretty intensive at times.'. "They've all invited outside housing associations to come in and build the houses for them. This means that they will never own them. As far as I know, we're unique."

#### *2002 update on Stonesfield Community Trust by Caroline Whyte*

The Stonesfield Community Trust continues to operate successfully. A third stage in its development began in 1993, when Tony Crofts and his wife, Randi Berild, who is an architect and had in fact designed the houses built in the second stage of the trust, bought an old factory in the village that had formerly been used as a silk-screen printing shop. They were aided in the purchase by a government grant intended for creating workspace. The loans they took out to buy the premises are being repaid by the rental income from the businesses that have been established there - a pre-school, a post office and a tele-cottage - and well as two more houses.

After seven years of paying back the bank loan on the property, the bank released its claim on the pre-school property. Crofts and his wife then transferred the ownership of the pre-school to the trust. The rest of the businesses and the two homes are still being paid off. The plan is that once the bank is fully repaid, the income from the properties will provide a pension for Crofts and his wife until they die, after which the money will go to the trust.

People living in the trust buildings have to have a historical connection to the village, and to be able to show that they can't afford to rent accommodation at market rates. Most people move on after 1-3 years, but some tenants are longer term. The trust is still unique in the UK. When asked about his vision for the future, Crofts commented that he wants the trust to be "about where it is now. I don't want to turn it into an octopus with tentacles all over the place". The board of directors has agreed that twelve dwellings is enough for the trust to administer.

Crofts adds, though, that "Our thinking is also developing in other directions. We're now looking to put the three other houses in Glover's Yard, our own home, and a new house we're buying in Bristol, into an industrial provident society in which people can buy shares which produce either dividends or a right to occupation of dwellings owned by the society. A bit like the proven American strategy of Community Land Trusts."

Many thanks to Nadia Johanisova for providing interview notes for this update.

Robert Swann and Susan Witt, E.F. Schumacher Society, 140 Jug End Rd., Great Barrington, MA 01230, USA. Tel 413-528-1737, e-mail [efssociety@aol.com](mailto:efssociety@aol.com). A handbook of legal documents for establishing a trust is available.

The School of Living, 432 Leaman Road, Cochranville, PA 19330, tel 610 593 2346, e-mail [SOL@s-o-l.org](mailto:SOL@s-o-l.org) was set up by Borsodi in 1934 and has administered a land trust since the early 1970s. It has published several pamphlets and booklets on land trusts.

The Institute for Community Economics, 57, School Street, Springfield, MA 01105-1331, tel. 413 746 8660, fax 413 746 8862, e-mail [info@iceclt.org](mailto:info@iceclt.org), has a number of publications available on Community Land Trusts.

Tony Crofts, Stonesfield Community Trust, Home Close, High Street, Stonesfield, Witney, Oxon, OX8 8PU. Tel + 44 (0)1993 891 686.

Scottish Crofting Foundation (formerly Scottish Crofters' Union), The Steading, Balmacara Square, by Kyle of Lochalsh IV40 8DJ, tel +44 (0)1520 722891, fax +44 (0)1520 722932, e-mail [hq@crofting.org](mailto:hq@crofting.org).

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They did not. The unprecedented drought saw to that. East winds and a dry April and May meant that the two men had to spend hours each day taking the tractor to a nearby river for water to keep the seedlings alive. "It was a particularly sensitive time" Deary says. "We were planting out the brassicas and Aidan had to work on watering from 6-10am and then I would work from six to ten at night. They survived but didn't grow. It was all we could do to keep them on a starvation water diet."

"We kept thinking 'It must rain soon'" Herr says. "We felt that, as soon as we spent money on an irrigation system, the drought would break and we'd get a normal Irish summer". But in mid-May, they decided they could wait no longer and Herr borrowed £8,000 personally so that a well could be bored, a pump installed and they could order a sprinkler system from Italy. "It was either that or see the farm collapse. As it was, we were unable to make six weeks' deliveries. We should have started supplying members in mid-May but in fact began at the beginning of July."

Who was to cover the cost of the missed deliveries? Legally, the Philipstown Trust was liable as its promotional literature had indicated to subscribers the amounts and value of the vegetables they could expect to get. But the Trust had no money to make refunds and, in any case, what was it except an organisation made up of the subscribers themselves? An extraordinary general meeting was held in September to sort the matter out and to consider how the project's other, more serious, losses should be met. These arose because, with two full-time employees, the garden needed an income of £40,000 to break even, which essentially meant that it had to have 200 subscribers paying £200 each. Even without the drought, the project would have been lucky to have reached this number in 1995, although forty new families joined in the early part of the year. However, when the missed deliveries destroyed people's confidence, the subscriber-recruitment drive stopped in its tracks and some faint-hearts even cancelled their monthly standing orders, cutting the number of participating families to 133.

Herr was extremely anxious before the meeting. How would the members react to what he had to tell them? How would they vote on a motion to wind the whole thing up? "When we put the motion to liquidate, the people who had been criticising us most fiercely earlier in the evening immediately swung round and wouldn't consider it at all," he says. Instead, the membership decided to convert their interest-free loans into grants and to write off the amounts owing for the missed deliveries. More importantly, 33 families said that they would make donations of £200 each to cover the shortfall in subscription income.

At the beginning of 1996, Herr and Deary were looking forward with confidence to the new season, particularly as, having seen the membership's rock-solid support, the International Fund for Ireland, which works to build links between the two parts of Ireland, had promised to make the project a substantial grant to buy new equipment. "We were eligible for support because our subscribers come from both sides of the border," Deary told me. "When we set the project up, I bought the equipment I thought I was going to need. Now I know what I need and it isn't quite the same thing." Indeed, Deary



had found that running a subscription garden was very different from growing for the commercial market. "If you are growing to sell wholesale, you can plant and harvest all the crop at the same time. Here, you need to have a little of each of a wide range of vegetables ready for picking every week. This means you have to have small plots of a wide range of things and makes planning quite complicated."

Herr was reasonably sure that they could get membership up to 200 during the course of the year. "The Dublin Food Co-op is going to subscribe for thirty memberships," he told me. "That will take us to up to about 165. Then a group of five families in Drogheda are joining and a new group of ten families in Newry are coming in as well. With the people who said they were going to join last year but didn't because of the crisis, that should about do it. Two members of our board visited some CSAs in California recently and were surprised that they were smaller than we are. But Mark couldn't change a tractor tyre on his own and if you are going to have two full-time workers and set the subscription at a reason level, the scale on which you have to operate is determined for you."<sup>59</sup>

Purely from the perspective of developing a local economy, it might seem that there is little to choose between a subscription garden which its members own as at Indian Line Farm and Dundalk, or which the workers own, as at Sundrum, or a box system owned by the growers, as with the Deanes. All three solutions appear equally valid because they allow small-scale production to continue in circumstances in which it otherwise would have ceased by eliminating at least two stages, the wholesaler and the retailer, from the conventional distribution chain. They also save on transportation and packaging. Moreover, all three systems give greater scope for job satisfaction than growing for unknown consumers long distances away. Circumstances rather than principle will normally determine which of the three variants, or what hybrid between them, is used initially in a particular community. If an existing grower who already has land and equipment wishes to serve people living nearby instead of an unstable, highly competitive distant market, then a box system is ideal. And if this grower can persuade his or her customers to pay for their vegetables in advance, that's fine. But in places such as Great Barrington or Dundalk in which there was no existing grower wishing to convert, consumers hoping to substitute organic vegetables for tired, well-travelled chemical produce and who also wish to stop purchasing power leaking from their community are going to have to act for themselves by renting the land, finding the capital, and recruiting and paying an experienced farmer. And, in such circumstances, they inevitably will have to carry most of the risk themselves as the members of the Philipstown Trust found.

But building a local economy is not just about using local resources to meet local needs - it is also about building the local community and in this respect, a CSA owned by its members is likely to be much more effective than one run for the benefit of private owners with customer involvement being little more than a convenient marketing tool. The Sycamore Co-operative Garden in Julian, Pennsylvania, is typical of many in the US when it states in its brochure that its prime objective is to 'foster the community of people who take seriously responsible stewardship of the land' and relegating the production of

'fresh eggs and organically-grown vegetables, herbs, fruit and flowers' to objective number two. As Timothy Laird puts it in the introduction to his study of 83 CSAs in North America, community supported agriculture 'tries to reconnect people with the land, and to reconnect farmers that are close to the land with the people who eat the food that they grow.... A [CSA] farm grows food not for sale, per se, but for the 'community'"<sup>60</sup>.

The movement, then, is primarily about connecting people and 63% of the growers in Laird's sample said that this was the most successful aspect of their operations. Surprisingly, the benefit one would have expected growers to be most enthusiastic about, the financial stability being a CSA gave them, came a poor second and was mentioned by only 30% of them, the same percentage that mentioned as a gain the fact that they were able to produce organic food. Over half the farmers said that community support was the most critical factor in their success, one grower telling Laird, who has himself managed two community farms, that a CSA needed "an educated and committed group of folks who will see the larger picture [and are] not just out there for their own selves." Others said that the best way to build a committed core group was to develop a sense of ownership among members, exactly what the Philipstown Trust has now done.

Many of the CSAs in Laird's study spoke of the difficulty of giving the grower a living wage, the former grower of a now defunct CSA saying "the time and expertise required to grow the variety and quality needed by members is greater than the members can afford." Another grower commented: "People can't comprehend what it costs to grow food." Despite this, most farms in the sample enabled the less-well-off members of their communities to participate in some way, sometimes by working a fixed number of hours for their share. Philipstown enables people who could not otherwise afford to participate to pay for their subscriptions in the local LETS unit. It spends the units to employ extra labour at peak periods. "It helped us and it helped the LETS," Herr says. "The LETS members had to find ways of earning the units they had spent with us and that re-invigorated the local system."

Early in 1996, the Philipstown Trust was negotiating to buy an old watermill site where a 10kW generator has been installed and is selling power to the national grid. The buildings, part of which run underground, are to be renovated and Herr's company will move in on one floor, its rent covering the Trust's mortgage. The rest of the buildings will be used for as a flour mill, grinding organic grains grown for the Trust by small farmers under contract, and a bread and biscuit bakery, which will produce exclusively for the Dundalk area. The waste heat from the ovens will be used in the subscription garden's polytunnels which will be located on top. "We'll be using our own electricity for power and only using the grid to balance out supply and our demand" Herr says.

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2002 update on Philipstown Trust by Caroline Whyte

After four years of operation, the Philipstown Trust ceased to function because of administrative and financial problems. Ollan Herr was left with the outstanding debts to pay because he had stood guarantor to them. "In retrospect, some people think the Trust was probably ahead of its time since many people couldn't really grasp the concept of subscribing to an organic farm, and thereby supporting it whether they got vegetables or not, rather than just paying for vegetables," Herr says. The idea that by paying a subscription, members of the Trust became joint owners of the farm was quite a novel one. Some people, including certain Trust board members, mistakenly thought of subscribers as being customers rather than members of a joint enterprise.

Another key problem with the Trust was its administrative structure. In order to apply for grants the Trust had to have non-profit status, and in order to gain this status it had to form a Board of Directors. Because of the unconventional nature of the Trust, people who were familiar with business management tended to be skeptical of its chances for success, and so were reluctant to join the Board. So the people who ended up on the Board didn't have much business experience. Moreover, some of them differed in their vision of what they wanted the Trust to achieve. Since the Board members all had equal say in the decisions of the Trust, this made for some serious administrative hitches.

Some Board members thought the farm should be able to compete with conventional farms, and that it should be able to sell vegetables to chain supermarkets. They didn't understand that with labour-intensive organic practices, the vegetables needed to be priced higher than conventionally grown ones. Matters were further complicated with the arrival of governmental mediators for grant agencies, who thought the trust should limit itself to fund-raising, even though it was already running a fully functioning organic farm. The Trust did get state funding to employ a farm manager who turned out to be very efficient, but there again, problems arose because some Board members differed as to what the manager should be doing, and so, according to Herr, "she had no clear directions and no clear targets to meet".

Herr experienced considerable frustration with the Board, since the Trust had been his idea in the first place and as a business-owner, he felt that he had a good idea of what was needed to keep the farm going. He says that instead of being able to concentrate on the farm, "I was spending a lot of energy on political game-playing". Other members of the Board queried his budget projections, and eventually they voted to follow the budget of the previous year rather than his, with the result that the Trust ran out of money.

Herr advises anyone who wants to undertake a project such as the Trust to get as much capital together as possible before starting, rather than relying on subscription and grant money. He does think that people may be more willing to support such an enterprise now, as there's somewhat more public knowledge about sustainable agriculture.

Unfortunately, the idea of buying an old watermill site with a generator and eventually establishing an organic bakery also didn't work out because of lack of capital. Herr says there still aren't any other organic farms that he knows of in Counties Louth and Meath. He does know of an organic farm in Co. Kildare that delivers boxes of vegetables to

customers, but this farm is family-owned rather than subscriber-owned, and he says the family "works around the clock" to keep the farm going. He feels that better government support would be helpful.

Mark Deary, the organic farmer who had put in 60-hour weeks to get the Trust farm going, left the job after three years when he realised the Trust wasn't working out. He is working in an orphanage in Romania now. Ollan Herr himself is now running a business called Reedbeds Ireland which designs reed bed sewage systems for individual households. These systems provide an environmentally sensitive way of getting rid of household waste. He supplies expertise and equipment for the systems, which are then built by local builders. The website for Reedbeds Ireland is at [www.reedbedsirl.com](http://www.reedbedsirl.com). He also has an organic forest garden on an acre of his own land, with fruit trees and bushes.

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No decision has been taken yet on using the subscription system to help finance any of these although Robyn van En thinks that the approach could be applied outside the agricultural sector: "A local small-scale baker worked out how many bread shares she would need to sell to afford the downpayment on a 40-quart bread mixer. Unfortunately, she did not have all the interest necessary until after her deadline. Someone else has suggested a community-supported auto mechanic: if everybody paid in advance for a tune-up and an oil change, a mechanic would be able to buy the equipment he or she needs." In Britain, in fact, commercial organisations have already used the subscription approach very successfully outside farming. The first legal whisky distillery on the Isle of Arran in Scotland for 150 years was opened in 1995 partly funded by the sale of £450 'bonds' which meant that the purchaser would receive five 12-bottle cases of a blended Arran whisky in 1998 and five cases of a single malt whisky in 2001<sup>61</sup>. And as the panel on brewing explains, capital contributions from prospective customers have financed a private, profit-making brewery in Birmingham.

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#### PANEL: PUBS BREW OWN BEER FOR ONLY NINEPENCE A PINT

In Britain, Australia and the United States, the tide is already running strongly against large-scale, centralised production when it comes to beer. After a period in Britain in the 1960s and 70s when easier road transport and changes in brewing technology enabled at least one regional brewery and its tied houses to be gobbled up by a major brewing chain every month, the reverse is now taking place and a micro-brewery serving free houses in its area, or a pub brewery just looking after its own needs, is opening, on average, every week. By the end of 1995, around 450 small breweries were trading, predominantly in England, and well over a thousand different small-brewery beers were available. Some of these were located in the most unlikely places, including ex-cowsheds owned by the National Trust in Devon, a disused sawmill in Hereford, an old foundry in Lancashire and a converted carpet warehouse in Yorkshire.

Two factors explain the revival of interest in small breweries. One is that many drinkers are bored with the bright, clear, fizzy, standardised, pasteurised keg beers the brewing giants substituted for the traditional cask-conditioned beers which require much more knowledge and care from the publican since the yeast they contain is still alive and they go on changing until they are served. The drinkers' dissatisfaction was channelled through CAMRA, the 67,000-member-strong Campaign for Real Ale which kept the taste for cask-conditioned beers alive and demonstrated to publicans that they could be an attractive commercial alternative to the mass-produced brews. "Drinkers are now trading up to beers full of flavour and character" says Jeff Evans, the editor of CAMRA's Good Beer Guide. "Keg beer is fading fast and lager is past its peak."

The second part of the explanation for the renaissance of small-scale traditional brewing is that, if there is a demand for real ale, it is best met from breweries close to where it will be consumed as this enables significant savings to be made in transportation and marketing and allows the brewery to educate publicans and their staffs exactly how its product needs to be handled, cared-for and served. "Many beers do not reach the customer in prime condition. It is absolutely essential that we are able to monitor our beer from fermenter to glass" says David Roberts, who set up the Pilgrim micro-brewery in Reigate, Surrey, in 1981. Indeed, the best solution is for the brewery to be in the pub itself as this eliminates transport and marketing costs altogether and ensures the brewer is always on hand to see the beer is always served at its best. One of the major brewing conglomerates, Allied Breweries, has realised this and has established its own 'Friar and Firkin' brew pub chain.

"There were between 6,000 and 7,000 pubs which brewed their own beer in Britain before World War I but a shortage of raw materials put almost all of them out of business. Only three or four brew pubs from that generation are still open today" says David Smith, who runs a consultancy based in York for people wishing to set up micro-breweries and brew-pubs. "Brewing on the premises is the best way to ensure that quality is maintained. It is also the least risky way of getting into the business: you have your market all ready and waiting for you in the bar. Most pubs will get through four or five barrels, each of 288 pints, a week and with a four-barrel brew plant you can probably supply all your needs in-house. You also have to remember that a brew pub not only attracts bitter enthusiasts but their spirits- and lager-drinking friends as well."

Smith left Samuel Smith's brewery in Tadcaster where he had worked for twelve years, initially as a production brewer and then as a brewer responsible for quality control, in 1988 to set himself up as a quality control consultant to the growing number of independent breweries. However, he gradually became involved in advising would-be brewers how to start up and by the end of 1994 he had been involved in the birth of twenty-four breweries, ranging in size from four to thirty barrels. His biggest brew-pub is in Jersey, with a twenty barrel capacity. He argues that a brew-pub can deliver considerable savings over a stand-alone micro brewery: "Many pubs have outhouses where the brewing can be done, so there's no extra overhead for premises as there would be if you were starting a brewery. Another saving is that the landlord can often do the brewing himself and may not have to employ anyone specially. And there's a saving in capital - if you set up a micro-brewery you're going to have to pay an extra £4-5,000 to buy a suitable secondhand van for deliveries. Many people overlook that."

Breweries also have the problem of selling their beer. The Border Brewery in Berwick-on-Tweed had to buy a pub to ensure that it could sell beer in its own town and a largish 'small' brewery in Wiltshire, Moles of Melksham, even bought up an entire chain. The alternative for both firms was to try to establish sufficient loyal outlets in the face of fierce competition from major breweries and from other micros and, in the meantime, to survive on the highly-uncertain sales to be achieved by featuring as a guest beer in real-ale pubs. "Everybody knows about the cosy supply deals which are not uncommon in supposedly 'free' houses and there's no secret about the heavy discounts that large breweries offer to ensure that other suppliers cannot compete" Jim Laker of Exmoor Ales complained in the licensed trade's paper, *Publican*.

Someone who knows the difficulties of not having secure outlets is Alan Gill, a former telephone engineer who set up what was at the time Britain's smallest brewery in a wash-house behind his home in Sutton-on-Trent, Nottinghamshire, in early 1992 using part of his redundancy money from British Telecom. "I'm looking for a pub where I can brew as well" he told me when I spoke to him in late 1994. "Next week I'm moving from here to a ten-barrel brewery in an industrial unit until I can find a pub to buy and move the equipment there."

Not that Gill had had too much difficulty selling the 2,300 pints he was producing every week in the wash-house. "There's a huge market I haven't attacked" he said. "I'm having to ration my customers now. I've got a 2.5 barrel plant here and brew four times a week. At present it's a struggle to make enough beer to get to break-even and distribution is pretty inefficient as the van goes out from here only half or one-third full. Eight pubs take my beer on a permanent basis and another eighty or so as a guest beer. I sell some beer through agencies but the problem with them is the length of time it takes for my barrels, which cost £43 a time, to come back. My bigger brewery will enable me to spend less time on brewing and more on marketing. Most decent free houses will try a beer for the first time and, after that, it's got to stand on its own."

The Cavendish Arms Hotel in Cartmell, Cumbria, took guest beers from real ale breweries like Gill's until September 1994 when it began to brew its own. "I had a normal week's supply of eight guest beers on the premises when we started" says Nick Murray, the hotel owner's son who runs the brewery, "and I had to throw a lot of it away. We've only had four guest beers in the twelve weeks since then. It's been very good for business. There were three or four other pubs in South Cumbria which offered guest beers but now we've got something which isn't available elsewhere. We brew two beers normally, Lakeland Gold, which is golden, hoppy and sharp and has 4% alcohol and Cartmell Trophy which is darker and slightly stronger. However, I've just brewed a special beer for Christmas which I haven't yet tried."

Besides exclusivity, there is another major advantage for pubs which brew their own: price. David Smith calculated that the price of beer from one of his installations is about £25 per barrel for materials and energy, which works out at less than 9p per pint. To this has to be added duty, which depends on the beer's alcoholic content but will typically add about £65 per barrel. "You can reckon on a cash cost including duty of £85-£90 a barrel" he says. This about half the price of a comparable bought-in beer, a difference of 30p a pint, although interest, depreciation and labour obviously have to be covered from this margin. The rest of the price of a pint is made up by the mark-up in the bar and VAT

at 17.5%. Thus a brew pub selling a pint at £1.50 will find itself paying 45p in VAT and duty to the government and 9p for materials, leaving 96p to cover its own costs. It is scarcely surprising that very few have failed.

It is surprisingly cheap for a pub to start beer production too. Smith mentions a figure of around £15,000 for the installation of a four-barrel unit using secondhand equipment, the actual sum depending on the amount of work needed to prepare the premises. "You can double that figure if you want to make the brewery a feature of the pub itself and instal it behind glass where the customers can see it, with wood cladding on the fermenters and copper tops on the mash tuns." Alan Gill's 10-barrel brewery cost him £30,000 to open in his industrial unit and Nick Murray spent 'around the cost of a small house.'

Lack of brewing experience does not seem to be an obstacle. Murray spent a week and £250 on a one-week brewing course at the University of Sunderland and then carried out four brews under David Smith's supervision. During the last brew with Smith, Murray trained his assistant who now carries out brews on his own. "It's not difficult if you've got a system" he says. Gill was an enthusiastic home brewer when he worked for BT and went on a three-day course at Malton Brewery paid for by BT as part of his redundancy package. "I felt I needed a better back-up of technical knowledge" he says. Since then he has taught courses of his own and says that at least six breweries have been started by people he has trained.

Gill and Murray have had few problems with officialdom. "Although I'd been expecting difficulties, the environmental health officer was very helpful" Murray says. "He didn't require the brewery room to be tiled because he said that as we would be moving barrels around they could easily get cracked and that would create a health hazard. Four good coats of paint was all he required." Gill finds Customs and Excise easy to deal with, too. "They come about four times a year to check that I am paying enough beer duty. I have to keep invoices for all the materials I buy and issue invoices for all the beer I sell. That's all."

Given their success in Britain, why have micro-breweries and brew-pubs not come to Ireland too? "I think the reason is that Guinness is a real beer and is not pasteurised. It takes 50% of the market" says Liam O'Dwyer whose family owns a chain of pubs in Dublin and who was associated with an unsuccessful attempt to start a real ale brewery, Dempsey's, between 1986 and 1988. The 25-barrel venture eventually closed with the loss of £200,000. "It sold into about fifty pubs and the major problem it experienced was the lack of knowledge in the bar trade" he says. "There was an education problem. We'd train the staff in one pub and, being nomadic people, they'd move on."

Another approach to local brewing has proved successful in Birmingham and the entrepreneur responsible, Robert McLauchlan, intends to sell franchises so that his model can be used elsewhere. It works like this: anyone able to use about 85 pints of beer, ale, stout or lager can go to McLauchlan's Ivy Bush Brewery in Edgbaston, select a recipe from the 40-odd available and brew up the ingredients, which he provides, in a special small copper kettle under the supervision of an experienced brewmaster until they come to a rolling boil. "No experience is necessary and if ever anyone gets a brew which is not up to standard they can brew it again free of charge" McLauchlan says. The process takes about an hour, after which the amateur brewer goes home. When his

brew has cooled - and most of the Ivy Bush's customers are male- yeast is added and it is placed in a temperature-controlled fermenting room for seven or eight days. The brewer then returns and bottles his creation to take it away.

"We sell only the ingredients and the use of the brewery. It is our customers who brew the beer and consequently Customs and Excise have agreed that they do not need need to pay duty" McLauchlan says. This means that the price of a pint from the Ivy Bush can range from 35p for Pub Bitter to 90p for Extraordinary Barley Wine, although most brews work out at 59p, very much more than the 9p per pint reckoned by David Smith to be the typical cost of the ingredients and energy used in one of his breweries. This margin has helped make the Ivy Bush a goldmine for McLauchlan. It opened in mid-1994 and by the end of that year, over a thousand permanent memberships had been sold at £40 enabling him to recoup its entire capital cost and build a second brewery. He had also sold an undisclosed number of temporary memberships at £2.50 for three months despite charging this class of member 17.6% more than the permanent ones for the ingredients for every batch of beer they brewed. Sales of reusable bottles at 29p each earned him even more and since at least half of the £100,000 cost of each franchise he sells will be pure profit, he is being well rewarded for a good idea. The idea was not new, however, as the Ivy Bush operates on the exactly the same basis as time-share holiday accommodation, and it is certainly one which communities should consider adopting for a wide range of projects of their own.

#### *2003 Update by Caroline Whyte*

The Ivy Bush closed in 1999, and other DIY-type breweries have also not succeeded in the UK, although elsewhere they have had better luck. Iain Loe, the research and information manager at CAMRA, wrote in a January 2003 e-mail:

"The reason why the Birmingham Brew on premises site closed, as did (as far as I know) the ones elsewhere in the country were, I believe, cask flow problems: lack of a strong customer base who regularly used the premises. The reason why there were not more customers was I believe because the offering did not appeal to enough people. It was not a full mash operation....there was a restricted choice of recipes."

He added, "There is a lot of very good beer being produced by the many new small breweries about. The pricing structure was probably wrong. Brew on Premises operations have worked well in places like Canada where in many parts there is a dearth of good beer."

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CAMRA, 230 Hatfield Rd., St Albans, Herts AL1 4LW, UK; e-mail [camra@camra.org.uk](mailto:camra@camra.org.uk). The editor of the Good Beer Guide is now Roger Protz.

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## THE IMPORTANCE OF LOCALLY-OWNED SHOPS

However many brew-pubs and CSAs are set up, it is not going to be possible for all local products to be sold direct to the customer. Local shops have therefore a crucial role to play if a district is to achieve greater economic self-reliance and it is unlikely that they will be able to do so unless they are locally owned. This is because major chain-stores do their buying centrally and will not be prepared to stock very different sets of suppliers in each of their outlets. As a result, the preservation - and in Britain, where so many villages have lost their shops, the re-creation - of locally-owned retail businesses has to be given high priority. The city of Canterbury does not have a single sizeable shop which is locally owned whilst Dorchester, Thomas Hardy's archetypical market town, retains only two.

Ireland is much better off in this respect. Even tiny Irish villages still have a food store and in Westport, the town where I live, only a video store and a shoeshop are not owned by local families.. But locally-owned retailers are under pressure in Ireland too, particularly in the grocery trade, and this has forced many of them to add less value to the products they sell because they do less to them. The result is that, even though they are still locally-owned, a smaller proportion of the price the customer pays stays within the community. Twenty years ago, Hoban's, with its wooden counters and a system of wires and springs which catapulted money across the ceiling to the office to make change, was the biggest grocery in Castlebar, Mayo's county town. That is, if it is correct to call it a grocery. It had a bakery at the back which was renowned for its pork pies and also made a wide range of breads, fancy cakes and pastries. There was an abattoir at the side, which slaughtered cattle for sale in the butchery department of the shop. "We didn't cure our own hams but we boiled and stuffed them and made excellent sausages and luncheon meat" Art Mulloy, a former employee, told me. The shop also packed its own tea and roasted and ground its own coffee. In short, it was more than a big shop with over thirty employees. It was a food factory too, and since it closed in the mid-1980s, partly because of competition from national supermarket chains but also because none of the owner's children was interested in taking it on, its work is being done elsewhere. Almost all the products the food shops and supermarkets in Castlebar pass over the barcode scanners at their checkouts today are processed and packed outside the town, sometimes on the far side of the world.

It is going to be extremely difficult to recreate businesses like Hobans but Derek Smith, a retired farmer, has established the non-profit Village Retail Services Association, ViRSA, to help communities in Britain to retain or re-open their local shops. His efforts began when, in January 1991, the owner of the only shop in his village, Halstock in West Dorset, was defeated by high interest rates and announced he was planning to close it. Smith and the other 350 villagers were stunned by what they regarded as another stage in their community's decline: their school had been closed five years earlier and before that the church had been amalgamated with seventeen other parishes into a four-priest team ministry and the rectory and glebe land sold.

But the fate of the school and church had been decided by outside institutions. The future of the shop, Smith and his neighbours felt, was in their own hands and they held a series of public meetings to decide what could be done. "At the first meeting, we came to the unanimous decision that we were determined to keep it open" he says. "At the second meeting, about two weeks later, we had our plans well worked out, which was just as well because the owner dropped the bombshell that he was closing down in three weeks' time. At that meeting, sixty people undertook to lend a total of £15,000 interest-free to a special company, Halstock Village Shop Ltd., which was to run the new undertaking. Five days after that, the company had leased premises which were converted, decorated, fitted out and stocked in what was left of the three weeks' notice we had been given. The old shop closed on the Friday evening and the new shop was trading on the Monday morning."

The shop was run by a volunteer for six months until a tenant, Brenda Erscott, took over. She put £12,000 of her own money into the operation and sub-rents the premises from the village company (which voted to convert itself to a co-operative at its first AGM) for £60 per week. As a result of a small difference between the rent she pays and the amount due to the owner of the premises, plus her payments for the company's stock, the original investors have been getting some of their loans repaid.

"They were given no guarantee that they would get their money back" Smith says. "The view from the outset was that people should not put up money they could not afford to lose. However, there was always a good chance of recouping half of the money if the business closed and the stock and fittings were sold off."

Although the shop matches supermarket prices on basic lines, it made a net profit of £3,665 on a turnover of £100,000 in 1993 besides paying Erscott a wage. But every penny she got was hard-earned. She opens between 7.30am and 6pm each weekday and also on Sunday mornings. She takes Tuesday afternoon off and employs two regular part-time helpers and another occasional one for a wage-bill averaging £100 a week. "It's hard work and would not really be worthwhile without my Post Office salary of £4,000" she says.

Smith believed that Halstock's experience might be of value to other communities and set up ViRSA to pass along the lessons he had learned. "Only a handful of villages have had any success with shop-rescue operations and fewer still have stood the test of time" he says. "It seemed to me that Halstock had the skeleton of a scheme which could be refined, widened and adapted to provide a repeatable model for other villages. Re-inventing the wheel can be an expensive and time-consuming business and the omission of a few spokes can easily lead to disaster."

The Halstock model has two important features, Smith believes. The first is that people wishing to retain a village shop actually invest money in it, thus guaranteeing that they will give it their trade. "Other methods of pledging working capital such as reverse credit in which customers advance cash to cover, say, their purchases for a month, are less

durable because there is nothing to stop people withdrawing from the system by not to replacing their capital after they have spent it some month" he says. "In any case, the amount of money reverse credit will raise is unlikely to be sufficiently large." A community loan to help an existing shopkeeper out of his debts is also unlikely to be satisfactory unless the reasons the business got into debt in the first place are tackled. Too many rural shopkeepers have borrowed so much to buy their houses and shops that they cannot hope to pay their mortgages with what they earn from their businesses.

The second key feature is that the village shop committee actually owns or leases the premises and the refrigerators and fittings in it and finds a tenant to run the shop there. "This enables the villagers to decide who should be their shopkeeper rather than vice versa" he says. "They have the chance of assessing the tenant's personality, retailing ability and financial standing before signing an agreement." Although running a shop with a volunteer staff might be necessary until a tenant can be found, he does not think it realistic for a community to plan to use volunteers to staff its shop indefinitely because people will lose interest. Nevertheless some villages - Letcombe Basset in Oxfordshire is one - have run shops with volunteers for ten or fifteen years.

Smith also advises against appointing a paid manager to run a shop on a village's behalf because the salary the business will be able to afford is unlikely to be sufficient to attract someone of the necessary calibre. In any event, he asks, who in the village is going to have the time and ability to supervise the manager? "Renting gives the tenant the opportunity to make a profit by using his or her retailing skills without making a heavy capital investment in premises. If the tenant fails to make a go of the shop, the village still controls the premises and has the option of keeping them open, perhaps with volunteers" he says.

After establishing ViRSA, Smith carried out a detailed survey of village shops in six counties to try to identify the factors which led to success. He came away convinced that the personality and ability of the proprietor was all-important. "Every shop I visited had a supermarket within ten miles. One shop, with a turnover of £158,000, had two competing supermarkets within a mile. It was run with skill and efficiency by a man and wife and showed the supra-importance of the shopkeepers themselves and what could be done in the face of intense competition."

The second most important factor, Smith found, was that the shop included a sub-post office because this paid the shopkeeper a regular salary and brought customers to the premises. "It may be that in villages with populations of well over 600 people a shop can flourish without a post office but this must be considered the exception rather than the rule" he says.

Given a shopkeeper with retailing skills, a congenial personality and the stamina to work long hours, a village shop and sub-post office can be made viable with a customer catchment of only 400 people provided the community gives its support, Smith says. Such a shop needs a selling area of at least 500 sq ft, a store of 150 sq ft, and should be

available for a rent not exceeding £50 per week. Other overhead costs, such as rates, electricity, water, telephone, insurance, accountancy and transport can be expected to total £146 a week. Since a typical village shop makes a margin of 18% on its sales, this means that an annual turnover of £55,555 is required before the shopkeeper gets any return for his time apart from the payment for running a community post office which, if he has it open for twenty hours a week amounts to £4,257 a year. Smith therefore reckons that a minimum turnover of £70,000 is required before a village shop can be considered viable but even at this level, the shopkeeper would only earn £132 before tax and social welfare deductions a week, including his post office wage.

In ViRSA's first year, Smith advised twelve communities on saving their shops. One which followed the Halstock formula to the letter was at Talaton in east Devon where the village store had been caught in a vicious circle of falling custom leading to reduced stock leading to a further fall in trade and had eventually closed after being run by the same family for three generations. "Everyone thought it was too much of an institution to close" one villager commented.

On Smith's advice, a questionnaire was circulated to test the strength of local support for retaining the shop and determined that 80% of the 140 households wanted it to survive. Then £6,500 was raised from 120 villagers by selling £50 shop bonds and £10 membership subscriptions to the Talaton Village Shop Association, a registered co-operative. "One motive to contribute which is often overlooked is that the value of people's houses in villages with shops is higher than in those without" Smith says. The village group then rented the shop premises which had been stripped to a shell and volunteer carpenters, plumbers and painters fitted them out. The balance of the money was used to buy stock, fittings, a cash register and cold cabinets. Thirty-five women now run the shop as volunteers, some doing as little as two hours a month.

Before it re-opened, the Talaton association reckoned that its shop needed to take £1,500 a week to survive. In fact, Letcombe Bassett survives on a fifth or a sixth of that level of business. "We're only turning over between £250-300 a week because we only open for an hour each day" says Anne Shone, who acts as co-ordinator. "However, we do serve as a meeting place for the village which I think is much more important than the amount of goods we sell."

Smith agrees. "Community shops are never going to take on the big supermarkets - some of them turn over less in a year than many supermarkets turn over in a day. However, they play an important role that out-of-town superstores can never fulfil. They are focal points and meeting places as well as being an important source of basic foods and household goods. Often they also stock something else that is lacking in most supermarkets - the best of local goods."

Update:

Peter Jones, ViRSA's Director, provided this information for us in November 2002:

ViRSA's principle objective remains the same today, that is community involvement in reviving or regenerating rural retail services especially the village shop and post office. Regrettably, ViRSA's founder Derek Smith died in 1997, the year that the organisation was granted charitable status.

At the time of his death there were three outworkers, or field workers as they are now called, covering England and Wales and an office that functioned on minimal resources and funds. From 1987 through to 1988 the Trust survived an awkward time as it lacked consolidated full time management. In 1998 I was recruited as the permanent director of the Trust and, although I am not a retailer I have extensive management experience coupled with empathy for the retention of village facilities and these facets I use to keep the Trust objective alive. Later that year the office had to move from our founder's farmhouse at Halstock as Alison Smith, Derek's widow, placed the property on the market. ViRSA moved to Dorchester, the county town of Dorset, and the location details are shown below.

I recruited a part time Assistant Director and retained the services of the original secretary who worked with the founder. In the last four years ViRSA's name has become increasingly well known in many circles including the all-important political arena. The number of field workers has been increased to fourteen and coverage is provided for the whole of England. The recent loss of coverage for Wales will be rectified when I recruit two replacement field workers to start in that area in 2003. All the field workers have created excellent networks in their respective areas to ensure the objectives are met speedily at no cost to the small communities. Just over 60 community-owned, managed and financed village shops have been created with assistance from ViRSA's unique service. The office receives more than 300 enquiries each year and this high level of interest is a credit to all the field workers who seek, for scant reward, to proffer community assistance.

The parlous state of the United Kingdom's post office network has created dire concerns over the last three years and much staff effort has been spent actively seeking solutions to the problem of declining services. The loss of the post office in a small village will mean the inevitable decline also of the shop so I am keen to ensure that post office closures are avoided wherever possible.

Whilst the village shop is a focal point for villages there is now more lateral thinking towards the provision of retail services. The "hub" concept using, for instance, the village hall for a retail outlet or adapting the local pub or threatened rural garage businesses are all options that are being considered. The increasing interest in the provision of locally grown foodstuffs is to be encouraged as too is the commercial application of the internet as an ordering and supply mechanism.

ViRSA has created an ancillary organisation to complement the Trust activity. The Rural Shops Alliance (RSA) ([www.rural-shops-alliance.co.uk](http://www.rural-shops-alliance.co.uk)) is a membership organisation to enable rural retailers to have an outlet for their opinions to both local and national government. Whilst providing an identity for the rural retailer the RSA is able to create the opportunity to give business enhancement training to go some way towards ensuring that businesses succeed rather than fail. The failure of the rural business would entail the community in picking up the pieces. To date just over one third of all rural retailers in the United Kingdom have been signed up and with the assistance of premier supply companies that provide the majority of the RSA funding the concept is thriving and growing.

ViRSA faces the next ten years in a time of change as the Government's attitude towards the countryside changes. The links between urban and rural activities will be enhanced. The small rural communities will remain vulnerable and ViRSA will look forward to playing its part in helping them. Funding for the Trust will continue to be a challenge to the Board of ten Trustees and it is hoped that some support will be obtained from our Government sources. Times may be hard but our optimism does not wane.

The ViRSA Educational Charitable Trust, Unit 4, The Little Keep, Bridport Road, Dorchester, Dorset DT1 1SQ, UK; Tel: (00 44) 305 259383, e-mail [virsa@ruralnet.org.uk](mailto:virsa@ruralnet.org.uk).

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In Ireland, where a much higher proportion of retail business remains in local hands, remarkably good results have been achieved by simply alerting people to what they stand to lose if they switch too much of their shopping to chain stores. Perhaps the most successful 'shop local' campaign is Communities Under Threat, which was launched in County Mayo in April 1993 by Brenda McNicholas<sup>62</sup>, a radiographer by profession and the mother of six children aged between eight and twenty-two who simply describes herself as a housewife in her campaign literature. 'I became involved through our local Integrated Resource Development (IRD) company in Kiltimagh, whose function is to use local resources and the initiative of local people to boost the local economy and help create jobs. At the first meeting I attended, there was a discussion on job losses, businesses closing and the leakage of money from the local economy because people were earning their money locally and spending it elsewhere. We felt that if the local economy wasn't supported, then talk of local development was pointless. We got an interested group together from around Mayo, and CUT began.'

McNicholas, who works unpaid although her printing and other expenses are paid by Mayo companies, including a big farmers' co-op, NCF, is normally invited to begin a campaign in a town by its chamber of commerce or a group of shop-owners. She holds a public meeting and then leaves behind a pack of specimen posters, speaking notes, circulars and leaflets which the local committee can use. One set of notes is for the local clergy - 'most of whom address the matter in church'. There is also a set of specimen news items for the next five issues of the parish newsletter. Other speaking notes are for

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talks to retailers, secondary schoolchildren and to the general public. All are very similar and make the point that £75 spent in the local economy generates £110-worth of business there because it passes from hand to hand, creating jobs and keeping the town alive. Money spent with a chain store on the other hand, is immediately lost and does nothing for the area. 'The quality of life we have in our small towns and communities around the west of Ireland is second-to-none - no hustle and bustle, no traffic jams, and a safe place in which to rear our children,' one leaflet says. 'Our towns and communities are the very essence of our country. We should support them, burture and treasure them. But do we?....It should be the aim of every town to be as self-sufficient as possible...if all local services are supported, then you have a thriving economy, which not only creates jobs but also attracts new businesses and new people to live there'.

There are other ways of providing sales outlets for local products, of course. One of the best, a market under the auspices of the Women's Institutes in Britain or the Irish Countrywomen's Association in Ireland, is described in the next panel. Another approach is to set up a co-operative which buys foodstuffs in bulk from wholesalers and producers and distributes it amongst the members. The Dublin Food Co-operative Society Ltd. works on these lines. It was set up in 1983 after Eoin Dinan wrote to a number of people he had met in the anti-nuclear movement's successful campaign to stop the Irish government building an atomic power station in Co. Wexford, inviting them to a meeting in a friend's flat to discuss setting up an organisation which would make it possible 'to shop in an ecologically sound way' and 'promote the rational use of the Earth's resources'.

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#### PANEL: STRICT RULES MAKE PRODUCE MARKETS WORK

Every Thursday morning, Brid McAuley unlocks the doors to Westport Town Hall, turns on the lights in the dark, echoing main room and, with a colleague, carries twelve folding tables from the stack in the kitchen and arranges them in a horseshoe along the two long walls and across the front of the stage.

Then from her battered estate car outside she carries in boxes and sacks of herbs and vegetables she and her husband Chris have grown on their organic two-acre smallholding about four miles out of town. "When we're at the height of the season, I have to make two car journeys to bring in everything we have" she says.

From nine o'clock onwards other people begin to arrive with things to sell too. They cover the table tops with American cloth and stack bread, buns and cakes on the tables to the left of the hall, knitted goods and other crafts to the right, and vegetables at the top end. Jams and lemonades go in the top left corner beside the free-range eggs, most of which are already ordered, and the plucked and dressed turkeys and hens. At the other end of the hall, two women are setting out tea tables, each with four chairs, where people will be able to sit for a snack. In the kitchen, sandwiches wait on trays and the boiler is on.

By ten o'clock, everything is ready. Over a dozen customers rush in as soon as the doors are opened to be sure of getting the items they want. An hour later, the tea tables are full of customers laughing and talking while the bakery and vegetable tables are almost empty although the market still has another two hours to run.

Give or take a few details, the scene I have just described is repeated once a week in seventy-four other towns and villages in Ireland and 538 in Britain - the places in which Country Markets Ltd in Ireland and WI Markets in England, Wales and the Channel Islands have branches. Both organisations are very similar in that they grew out of the two countries' associations of countrywomen, the Irish Countrywomen's Association (ICA) and the Women's Institute (WI), and the Irish body adopted many elements from the WI's operating manual when it opened its first market in Fethard, Co. Tipperary, in 1946. The first British market had opened in Lewes, Sussex, twenty-seven years earlier to enable WI members, unemployed people, pensioners and ex-servicemen to sell surplus garden produce. However, relatively few markets opened until the depression in the 1930s when, after a request from the Ministry of Agriculture that the WI help feed the nation, a grant from the Carnegie Trust enabled the movement to expand.

That both original markets are still trading is in large part due to the rigid operating systems the two national organisations use. It is worth looking at these in some detail particularly as, in Ireland at least, they are regarded as highly confidential. "No business would tell anyone who asked exactly how it operated" says Mary Coleman, the chief executive (her job title is secretary) of Country Markets Ltd., the co-operative society of which every Irish market is a branch. "Why should we?"

Let's start with the procedures for opening a new market. "If any market member is approached by a person or a group in another area with a view to starting a branch market" the Irish manual says, "Country Market's Central Office should be notified immediately so that the Society's Secretary may attend any meetings to explain the Society's aims, rules and function." In fact, Mary Coleman will travel out from Dublin to attend at least four meetings before any market opens. At the first she describes how the markets operate and if, after that, sufficient people decide they want to go ahead, she will conduct a minimum of three workshops with them covering the duties that those elected as officers of the local branch will have to take on, how goods offered for sale must be labelled and packed, and how the branch's records must be kept. The costs of these four meetings must be covered by a local voluntary organisation in order to ensure that the proposal to start a market has been widely discussed in the community and has gained a degree of support. In most cases, this sponsor will be the local branch of the Irish Countrywomen's Association but other organisations such as gardening clubs have backed start-ups in the past. Membership of the markets, while predominantly female, is open to both sexes in both countries.

After the workshops, those who attended are invited to become members of the Country Markets co-op by buying £3 worth of its shares and if a minimum of twenty do so and undertake to make or grow goods for the market on a regular basis, Mary Coleman is likely to recommend to the national committee of management that a new branch be formed and allowed to trade.



Nothing sold in a Country Market, not even the handcrafts, carries the maker's name. The label just carries a membership number written in black, and beside it, written in red to prevent confusion, the price. Moreover, the person who sells it to you is unlikely to have made or grown it and will be most reluctant to tell you who did. Why the anonymity? Aren't market members proud of their work? "Of course they are" says Mary Coleman, "but if the maker's name appeared on something, you could find that people who did not like that person would refuse to buy her produce. And if we allowed people to sell, for example, their bread and cakes as well as those made by other members, there would be a natural tendency for them to try to sell their own goods first. So it's best that everyone sells other people's produce. That way, they can be completely even-handed and neutral about it."

When members bring their goods into the market before it opens, they present the market controller with a duplicate book in which they have listed everything they have brought to sell. The controller not only checks the list against the quantities received but, in some markets at least, grades fresh fruit and vegetables according to their size and quality and checks the goods' presentation. "This grading is essential" says the Irish manual. "As it is the quality of the produce, its freshness and presentation that attracts customers, the Controller should not accept indifferent quality produce." The controller might also discuss the prices members are proposing to charge so that everyone operates on the same basis and does not undercut local shops: "The Society does not undersell" the manual states. If a market goes by the book, the only prices not based on their shop equivalents are those for cooked products such as bread, cakes and jam, which are priced at whatever the jar or Clingfilm wrapper cost plus twice the price of the ingredients and heat. "Regular 1lb (454grms) jam pots must be used and make sure there is no brandname on them [as this would] leave Country Markets Ltd open to prosecution" the manual says.

If a member takes away unsold goods at the end of the market, the Controller amends both copies of the delivery note, taking one copy herself and returning the other in the duplicate book to the member. Meanwhile, the market treasurer is totting up the takings to lodge in the bank. "From the day a market starts, every penny must be accounted for whether it is received or paid out. To achieve this, all money received must be lodged in the bank and all amounts must be paid by cheque" the manual emphasises.

Members do not get paid on market day for what has been sold but receive a cheque for a month's markets some time later from which a ten per cent commission has been deducted. Most of this levy goes to cover local costs such as the hire of the hall but just less than a third goes to head office where it pays the secretary's salary, accountancy fees and, most important of all, for insurances which cover against accidents the public might suffer on market premises during opening hours, the loss or theft of market money and any claims that might arise if people became ill after eating food sold from a market stall. Market members are also covered for any accidents which might happen to them from the moment they leave home on market business for the additional sum of £1 each per year.

Most markets find the 10% commission more than enough to cover the head office levy and their own expenses and the rules allow their members to vote on whether the surplus should be distributed amongst themselves or used to promote co-operative

principles, pay for educational courses or support community activities. "We usually use ours for community activities" says Lilly Rider, the chairman of the Westport market. "We're frequently approached for funds by groups like the Street Festival and the tourism committee."

Not every market has been a success of course and some have closed down. Mary Coleman says the most frequent cause of problems is a lack of commitment to the co-operative principle. "Many people have no idea what it means to be a co-operator" she says. "Dr. Muriel Gahan, one of the founders of our first market said that it took persistent goodwill. Of course, people are going to have to work with others they might not like but I can remember one lady telling me that she would regard it as her personal failure if she couldn't do so for even two or three hours a week."

Besides being secretive about their operating procedures, the Irish markets are also reluctant to speak about their total annual turnover: "Quoting a figure might give people the wrong idea. They could think it was all profit whereas, when you've deducted members' costs and made allowance for their time, they are getting very little per hour" Mary Coleman explains, ever fearful that the taxman might become interested. The British are not so shy, however, and as part of their 75th anniversary celebrations in 1994, proudly announced that their turnover had grown from £1m. in 1972 to £10m. in 1992, an average of £18,600 a year per market. This might not seem much but it conceals huge differences in turnovers between markets and between the earnings of people within them.

About twenty people sell goods through the Westport market each week although the branch has over forty members. "You can get out of a Country Market as much as you put into it" Brid McAuley says. "Some people just bring along a few jars of jam each week. For them, it's primarily a social occasion. For others, however, the earnings are very important and it has become nearly equivalent to a part-time job. They might bake on Wednesdays, make jam at the weekend and knit in the evenings. Mary Coleman told us when she came down to set this market up that it would only provide a small supplement to our families' incomes but for some of us, it's doing much better than that. But then, you've got to remember that Westport is a particularly progressive market. If you go to some of them, it's just a few old ladies sitting around, which is fine if that's what they want. There's another market I can think of which people say reminds them of the war years and rationing. We've had some customers from there this morning and they said that they never go to their local market because it's too depressing."

No-one may belong to more than one Country Market and, although I cannot spot it in the manual, the Irish markets also have a policy of refusing membership to people who live more than ten miles or so from where the one they have applied to join is held. "This is because we believe that they should set up their own markets and not get involved in driving long distances" Brid McAuley explains.

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*The craft stall at Westport County Market, May 1996. (photo: Frank Dolan)*

Pauric Cannon, who is now the co-op's co-ordinator, was one of the sixteen people who attended. "We had become increasingly aware of the critical link between a clean environment, nutritious food and healthy people" he wrote in an article written to mark the co-op's tenth anniversary <sup>63</sup>. "A wholefood consumer-owned co-op committed to organically grown food would, we firmly believed, provide a down-to-earth way of addressing the environmental threat."

The meeting had been well planned and everyone there was given a photo-copied list of forty food products from which they could order. The idea was that if each person paid for whatever they wanted in advance and their individual orders were amalgamated, not only would the group be able to buy wholesale but, by paying on the nail, would get the best possible discount from the supplier. A short time later, the first batch of wholefoods was delivered and the group began to meet every month in a room on the second floor of a vegetarian restaurant to divide up what they had ordered. "All the food was weighed, packed and orders collated and assembled by members organised on the basis of a voluntary help-rota" Cannon writes.

Eventually, however, when membership reached forty, it became just too much work to carry sacks of rice and beans up four flights of narrow stairs and the co-op rented a small groundfloor room elsewhere until the regular queues of members along the pavement meant they had to move again. In 1987, it moved for a third time to the large hall on Pearse Street it still rents on Saturday mornings. By this time it had 200 members and was holding fortnightly rather than monthly advance-order-collection days. Turnover was only £7,000 a year, however.

Sales reached £100,000 a year around the time of its tenth birthday in 1993 and members began to grow restive about still having to order in advance. "With over 500 members, the law of large numbers must be starting to apply" one wrote in the co-op's Newsletter. "I would bet that the amount of rice and wheatgerm bought each week varies very little. With five or fifty members, pre-ordering is essential but with the current number's purchasing power I suggest that it is largely redundant." The chairperson's reply casts an interesting light on the co-op's information systems and finances. "The [advance order system] is the only means of assessing the order requirements for the wholesaler" he wrote. "We usually have at least £2,000-worth of produce left over after each Collection Day.... We are unable to pay for goods until they are sold, so we are unable to avail of the

suppliers' discounts for prompt payment." In other words, after ten years trading, the co-op had not amassed enough capital even to finance the carry-over of £2,000-worth of stock. This was because, in the interests of giving members the cheapest possible prices, the mark-up to cover operating costs had been set so low that the operation barely broke even, as the accounts show. In 1991, for example, the year's surplus was a mere £40. On the other hand, a survey showed that supermarket prices were 42% higher than the co-op's for an identical selection of goods.

The minimum-possible price policy not only cost the co-op suppliers' discounts but meant that it lacked sufficient capital to run itself properly. "I don't think that the average member of the co-ordinating committee has any idea of the problems we face and amount of unnecessary work that has to be done just because we're not properly set up" Pauric Cannon told me in mid 1995. "We're finding it increasingly difficult to operate the co-op at its present size because of the small storage space in our present premises and the difficulty of getting supplies in and out of the building. We'd like a building with enough space for storing and handling food which would meet food storage standards." As the co-op was planning to send out ready made-up orders to 'co-op clubs' - satellite groups of members who found it inconvenient or impossible to call in the pick them up - the need for suitable accommodation was particularly pressing. Cannon was also upset because the committee had decided to hold collection days every week rather than every fortnight, which meant twice the amount of work setting up in the hall and then putting things away again for, at that time, the same amount of business. "Weekly collections have damaged the co-op from the social point of view, too" he said. "People no longer come every collection day so you can't be sure of meeting someone."

When I contacted him six months later, however, he was much more optimistic. The co-op had had a financial crisis since we last spoke and had given itself such a fright that it had increased the mark-ups on the goods it handled. "We now charge 10% on fair-trade products like Campaign tea and coffee" he told me, "20% on essentials like rice and pulses, and up to 30% on luxuries. These rates are 3% to 4% higher than they were a few months ago." As a result, finances were much improved and the co-op even had £5,000 in a special capital account to spend on equipment. However, they were no nearer getting a better building and he did not think that it was realistic for them to raise the money to for one though higher margins. "The mark-up will be put back down again as soon as the crisis is over" he said. "We're trying to set up an ethical investment organisation. This will be independent of the co-op but we're hoping that the co-op will be the recipient of one of its first loans so we can get a building" he said. Other things were going well, too. Advance ordering had been abandoned, membership was over 600, sales had increased by enough to make the weekly collection days worthwhile ("We're doing over £3,000-worth of business a week") and four co-op clubs were in operation, two of which were outside Dublin.

Over the years the co-op has established friendly links with the giant Seikatsu Consumer Co-op in Japan which began in 1965 when a housewife persuaded 200 women to buy their milk collectively and now supplies over 220,000 households with a high proportion

of their food. Apart from the disparity of scale, however, there are two significant differences between the organisations. One is that Seikatsu members, 99.9% of whom are women, pay the equivalent of £6 a month to belong to it until they have made a total investment of £1,500. As a result, in 1995 their co-op was capitalised at over £100m., the equivalent of £450 per member, a sum which has enabled it to employ 800 full-time workers, again mostly women, manufacturing, growing or delivering a wide range of products which are always of high quality though not particularly cheap. Members of the Dublin co-op, on the other hand, pay only £4 a year for membership and expect low prices. As a result, their organisation has very little capital per member and only one employee, Pauric Cannon.

The other difference is social and here Dublin scores much better. Seikatsu members are



*Saturday morning at the Dublin Food Co-op. May 1996  
(photo: Larry Boland)*

divided into groups called 'han' of between six and thirteen people which place a collective order once a month for delivery to it a week later. Thus, while there is a lot of social interaction among members of a han, they may have no contact with other Seikatsu members although the co-op's regional offices do organise visits and social activities. In

Dublin by contrast the range of people the average member unavoidably meets by buying through the co-op is much

greater, if only because of the numbers present on collection day and the fact that members do not rush in, take their goods and hurry out again as they would at a supermarket. Collections are a time for meeting friends and the refreshment area is often the most crowded part of the hall. In addition, if a member joins one of the seven teams of forty people which help weigh out orders in advance and operate the check-outs on a rota basis, he or she will build up a camaraderie with people they would otherwise have never come across. They will also meet organic growers and craftworkers who sell from stands in the hall and representatives of organisations like Greenpeace and Amnesty often put up a display. "We may be ahead [of Seikatsu] as far as the social aspects are concerned" Cannon says cautiously. "They are more removed from their members. Nevertheless, we've learned a lot from them, particularly about stock control and picking up point-of-sale data. Did you know that seven of them came over here and we got a write-up in their magazine?"

For many members, in fact, there is a close correlation between the Dublin co-op and their community. "People have a basic need to feel they belong to something"

Cannon says. "Many people join a church for that but when I go to church I never get to meet anybody. Here, we're trying to become more aware that we're part of the whole community of nature by emphasising the links between food and the natural world."

Cannon used to be a property valuer 'lubricating the wheels of the capitalist system' before the co-op entered his life twelve years ago. Does he regret the time he's given it? "Not at all" he says. "I get a tremendous sense of satisfaction. It's really the people aspect, the range of people I've come into contact with, not just the Pearse Street community but people in Spain, Greece, the UK, the US and Japan. We're all brothers and sisters and it's wonderful to realise we're connected somehow, all working for the same thing."

Further Information: (last updated October 2002)

## PRESERVATION OF GENETIC RESOURCES

Heritage Seed Library, Genetic Resources Dept., HDRA, Ryton Organic Gardens, Ryton-on-Dunsmore, Coventry, CV8 3LG. Tel. +44 (0)24 7630 3517, fax +44 (0)24 7663 9229, e-mail [enquiry@hdra.org.uk](mailto:enquiry@hdra.org.uk). A year's membership of the library costs £21 (+£5 if you live outside the UK) and includes a subscription to The Organic Way, the library's attractive and informative newsletter.

Genetic Resources Action International (GRAIN), Girona 25, pral., E-08010, Barcelona, Spain. Tel +34 933011381, fax +34 933011627, e-mail [grain@grain.org](mailto:grain@grain.org). GRAIN works for the sustainable conservation and use of agricultural biodiversity based on local knowledge and people's control over genetic resources. GRAIN currently has two e-mail lists on the subject of biodiversity which can be subscribed to, and you can also subscribe online to its quarterly newsletter, Seedling, which is especially strong on conservation work in non-industrialised countries.

## LOW EXTERNAL-INPUT AGRICULTURE:

The Soil Association, Bristol House, 40-56 Victoria Street, Bristol BS1 6BY, UK, tel +44 (0)117 929 0661, fax +44 (0)117 925 2504, e-mail [info@soilassociation.org](mailto:info@soilassociation.org), is the key organic agriculture organisation in the UK. Supporters receive a quarterly magazine, Living Earth, for their £24 annual subscription. Membership for farmers costs £76.13 per year, and includes access to a telephone helpdesk and the quarterly Organic Farming magazine.

In Ireland, there are two mainstream organic organisations, the Irish Organic Farmers and Growers' Association, IOFGA, Harbour Building, harbour Road, Kilbeggan, Co. Westmeath, tel +353 (0)506 32563, fax +353 (0)506 32063, e-mail [info@irishorganic.ie](mailto:info@irishorganic.ie) and the Organic Trust, Vernon House, 2 Vernon Avenue, Clontarf, Dublin 3, Ireland. Tel/fax +353 1 8530271, e-mail [organic@iol.ie](mailto:organic@iol.ie).

## COMMUNITY SUPPORTED AGRICULTURE

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In Britain, contact the Soil Association, address as above.

Community Supported Agriculture of North America has established the Robyn Van En Center for CSA Resources, which "offers a variety of services to existing and new CSA farmers and shareholders nationally". These services include technical assistance, links to existing CSAs and information about events and conferences. The Center's address is Wilson College, Fulton Center for Sustainable Living, 1015 Philadelphia Ave., Chambersburg, PA 17201, tel +1 717 2644141 ext 3352, fax +1 717 264 1578, e-mail info@csacenter.org.

## RETAIL CO-OPERATIVES

The Dublin Food Co-operative Society Ltd., Carmicheal House, North Brunswick Street, Dublin 7. Tel. +353 (0)1 873 0451, fax +353 (0)1 873 0452, e-mail

The Seikatsu Club Consumers' Co-operative Union, 3-2-28, Mikasaka, Setagaya-ku, Tokyo, Japan. Tel. +81 3 3706 0036, fax +81 3 3427 9401. It has several publications in English, including a book, *I Among Others*, (Seikatsu Club Seikyo Kanagawa, Yokohama, 1991) which analyses the movement at a theoretical and practical level.

## Notes

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3 *Green Fields, Grey Future: The EC Agriculture Policy at the crossroads* (Greenpeace: Amsterdam 1992)

4 K. Blaxter, *Energy Use in Farming and its Cost*, Oxford Farming Conference, 1978.

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6 Blaxter (*op. cit.*) estimated that 28 per cent of UK energy was used to grow, process and distribute food.

7 Richard Body, *Our Food, Our Land: Why Contemporary Farming Practices Must Change*

8 C. Arden-Clarke and R. Hodges, 'The environmental effect of conventional and organic/biological farming systems', *Biological Agriculture and Horticulture*, vol 5 (1988), no.3, pp. 223-287, cited in Greenpeace, *Green Fields, Grey Future*.

9 Interview with Dr K.G. Cassman, International Rice Research Institute, 1994.

10 University of Arizona Press, Tucson, 1990. A British edition was published the same year by Lutterworth under the title *The Threatened Gene: Food, Policies and the Loss of Genetic Diversity*.

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13 Telephone conversation, 1995. Murphy's account of his cabbage collecting is on pp. 119-130 of the final report of the EC research programme, *The Collection of Land-Races of Cruciferous Crops in EC Countries* by Q. Van der Meer et al., Wageningen, 1984.

14 Telephone conversation.

15 E-mailed document from UK Department of Environment, Food and Rural Affairs, October 2002. (CW)

16 Kay Fennel, *The Seed Scandal* (Socialist Countryside Group, Sevenoaks, 1987).

17 *The Apple in Ireland: Its History and Varieties* (RDS: Dublin 1951).

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19 *Common Ground*, July-August 1993.

20 Telephone interview.

21 Telephone interview.

22 Telephone conversation, 1996.

23 *Economist*, 10 August 1991.

24 Letter, 23 January 1995.

25 Cary Fowler, *Report on Grassroots Conservation Efforts*, US Office of Technology Assessment, Washington, 1985, cited in Fowler and Mooney, *Shattering*.



26 Quoted by Henry Hobhouse, *Seeds of Change* (Macmillan: London 1992). I have also drawn material on the Great Famine from Austin Bourke, *The Visitation of God: the Potato and the Great Irish Famine* (Lilliput: Dublin 1993).

27 See above.

28 *Irish Times*, 3 May 1994 and 10 February 1995.

29 Cited by Leo Curran in *Kerry and the Dexter Cattle* (RDS: Dublin 1989).

30 Keith Chivers, *History with a Future: Harnessing the Heavy Horse for the Twenty-First Century* (Shire Horse Society: Peterborough 1988).

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33 A. Vine and D. Bateman, *Organic Farming Systems in England and Wales* (Department of Agricultural Economics, University College of Wales, Aberystwyth 1981), cited in Greenpeace, *Green Fields, Grey Future*.

34 E. Böckenhoff et al., *Berichte über Landwirtschaft*, 64 (1986), 1, pp. 1-39, cited by Greenpeace, *Green Fields, Grey Future*.

35 *Profitability of Four Sustainable Farms in Minnesota*, 1994 (Land Stewardship Project, PO Box 130, 180 E. main Street, Lewiston, Minnesota 55952; tel +1 507 5233366).

36 *Alternative Agriculture* (National Research Council: Washington 1989), p.39.

37 Earthscan, London, 1995.

38 'Organic Farmers higher in sperm than other men', *Irish Times*, 10 June 1994.

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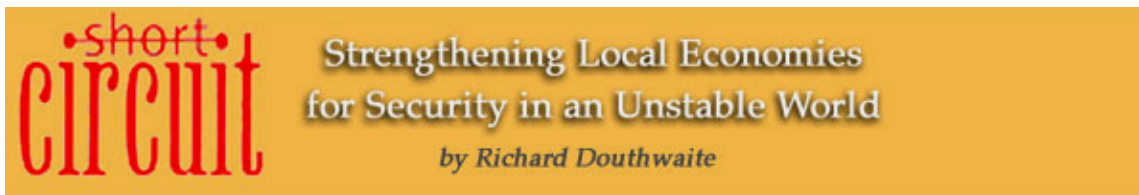
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## Chapter Seven

### NEW ATTITUDES FOR NEW TIMES

The market economy relies on competition to control the way businesses behave. As this will not work in a community economy, new approaches and attitudes need to be found.

In the mainstream economy, great stress is placed on individual achievement and unless we can reduce or shift this emphasis which has given the industrial system so much of its shape, we will fail to develop a satisfactory alternative. To put this more directly, if we simply begin to use a selection of the methods by which communities can become more self-reliant without changing our attitudes to the balance we strike between community goals and personal ones, we are bound to get disappointing results. Fortunately, as we will see towards the end of this chapter, a new balance does not mean we will have to make significant personal sacrifices. Quite the contrary, in fact; we will gain personally by moving towards it.

In part, the industrial system's emphasis on the individual is a by-product of the Protestant reaction to the Roman Catholic teaching that the church was the road through which the individual reached Heaven. Protestantism taught instead that salvation depended exclusively on the individual's unmediated relationship with God and, eventually, almost everyone in the Western world, Catholics included, came to feel that they were individually responsible for their spiritual destiny. From feeling that one should look after one's own future in the next world, it wasn't too big a step to believe that one ought to do the same in this, particularly after 'the father of economics,' Adam Smith, wrote in *The Wealth of Nations* in 1776 that if each of us pursued our personal advantage in the economic sphere we would be led by an invisible hand to promote the interests of society more effectively than if we had deliberately set out to do so. But those who wear Smith's mantle today have forgotten or deliberately overlooked that part of what Smith meant by the invisible hand was the acceptance by everyone, businesspeople included, of a set of societal values to which they conformed and which in certain cases were given teeth by the law.

The disregard today's economists display for the social component of the invisible hand is not accidental: the economics profession deliberately excludes morality and social and psychological factors from its scheme of thought. All mainstream economists assume that people make decisions rationally on the basis of narrow, individual self-interest and that a

national economy can be understood by aggregating all these individual, rational, selfish decisions. In other words they assume, in Mrs Thatcher's famous phrase, 'there is no such thing as society' to moderate or modify individual behaviour despite the fact that sociologists, a breed economists heartily despise, have produced a great deal of evidence that it is social and group norms which are the main determinants of human behaviour.

Economists are forced to ignore the possibility that irrationality, prejudice, love, community solidarity, idealism, upbringing, and even enlightened self-interest might help explain the way people behave because, if they abandoned their twin simplifying assumptions of rationality and pure self-interest and let some or all of these other possible factors stay in the picture, the world would remain so complicated that they would not be able to say anything definite - and they hope, useful - about it. In many cases, of course, their simplifications seem to work in that they enable them to predict what will happen with reasonable accuracy. However, it is a grossly unwarranted step to go on to say, as most economists do, that the real world ought to be modelled on their simplified theoretical one in order to be efficient and that any actual system, action or outcome which does not accord with what they would have advised under their assumptions is sub-optimal.

Unfortunately, few people realise that most economic pronouncements are so flimsily based. The result is that whenever an economist categorises a proposal as uneconomic, it is abandoned as rapidly and with as little discussion as it would have been five centuries ago had it been described as immoral from the altar. Indeed, morality gives force to the economists' condemnations, just as it did the priests', because anything truly uneconomic involves waste, a moral issue in a world in which people go without.

Like priests, too, economists have affected the way the laity thinks, except that their teachings have made people less rather than more likely to put collective interests on a par with their own. This was demonstrated<sup>1</sup> in a series of fascinating experiments carried out by two psychologists and an economist at Cornell University at Ithaca, upper New York State. In one test, for example, first-year graduate students from a number of disciplines were given some money and asked to divide it between two accounts, one 'private' and the other 'public'. They were told that they would be able to keep any money in their private account at the end of the experiment but that money in the public account would be pooled, its total increased by a certain percentage and then divided out equally amongst all participants. For the group as a whole it was obviously best if everyone put all their money in the public account as this would create the maximum sum to be increased by the percentage so everyone could share in the biggest distribution possible. From the individual's point of view, though, the best course was to put all the money in one's own account and to take the share of the pool provided by the suckers as well. So what did the students do? When the results were analysed, it was found that economics students had contributed, on average, only a fifth of their money to the public account whereas other students put in half. Questioned afterwards, nearly half of all the non-economists said they had been worried about the fairness of their allocation but more than a third of the economists refused to answer the question or gave very complex uncodable

responses. "It seems that the meaning of fairness in this context was somewhat alien for this group" the research team commented wryly.

In a second experiment, each student was given \$10 and asked to divide it between him- or herself and another student on the basis that if the other student disputed the division, neither would keep any of the money at all. If the dividing student believed in fairness he or she would obviously split the money 50-50 while anyone motivated more by self-interest would calculate just how little they could offer the other - 50c, perhaps - to avoid the distribution being disputed out of jealousy or spite. Each pair played the game only once, so that the receiver had no incentive to dispute the first division in order to get better deals subsequently. And what happened this time? The economists again distributed the money significantly less fairly than students from other disciplines.

After a survey that showed that economics professors gave less to charity than other academics, the researchers conducted a fourth study that showed that it was an economics training that made people less public-spirited rather than the innate disposition of people who took up economics. This they did by asking three groups of students a series of questions about their responses to hypothetical situations over a number of months. Two of the groups were made up of first-year economists: a hard-line one being taught microeconomics by an instructor with an interest in industrial organisation and game theory and a softer one taught by a specialist in the development of Communist China. Members of the third stream, the control, were astronomy students. A consistent pattern emerged, with the hard-line group becoming more selfish than the second one, who in turn grew worse than the astronomers as their course went on.

Just as Catholic attitudes were influenced by the Protestant teaching on salvation, it is not only economics students and professors whose approaches to problems have been profoundly affected by the anti-communal aspects of economic thought: public attitudes have been damaged as well by the constant repetition of economic teachings in the media. And, since economics is not the neutral system of analysis it pretends to be but an ideology that, because of its in-built assumptions, can prejudice our approach to real world, even if we have never studied it we need to try to counteract its baleful influence on our thinking processes. Otherwise, our attempts to establish community-based economic organisations are likely to go wrong.

Sixto Roxas, a Filipino economist who was once vice-chairman of the American Express International Bank argues<sup>2</sup> that the main problem with conventional economics is that it focuses its analysis on the interests of the individual and the firm rather than those of the family and the community: "Neo-classical economics is not just a mathematical framework or analytical guideline to facilitate the understanding of reality: it is a full-fledged ideology and design for remaking the world" he says. "The world that we are living in today is being cunningly and insidiously organised to fall into a particular pattern of imposed development, a massive restructuring in the image of the enterprise system" that only engages itself in projects that are profitable to the promoters and which ignores humanity's other needs. "What is left behind is a gigantic mess of virtually

unsolvable problems: health, education, environmental preservation, care for the poor and the handicapped" Roxas continues. People are reduced to flesh-and-blood machines that earn wages and salaries and generate profits but whose non-economic existence is not recognised.

In order to remedy this situation, Roxas proposes that a profit-and-loss balance sheet should be drawn up for the community as a whole rather than for just the income earners in its area: "The enterprise paradigm has established an accounting system that measures revenues, costs and incomes for enterprise owners. A new community paradigm must do the same for communities" he says, adding that national income figures such as GDP ought to be compiled from community accounts rather than, as at present, from the incomes of firms and individuals.

But while the implementation of Roxas' idea would be a great step forward, it would immediately run into the problem we discussed in Chapter Two, namely, that market prices cannot be relied upon to provide us with correct values for all the benefits a community enjoys, particularly as these would include things like health, happiness and beauty. And what constitutes a community cost to set against such benefits? Certainly not the current cash price of the goods and services that had to be sent out of the community in exchange for those which came in. Nor the amount of the work community members did: indeed, fulfilling work ought to be counted as one of the gains. Only any harmful side-effects of the way the local economy was being run such as increases in ugliness, unemployment, induced ill-health, inequality, crime, stress, noise, pollution, soil erosion and natural resource use would count as costs to be set against the gains.

Community accounting would therefore be very different from enterprise accounting and would yield very different results. Only one set of figures - those for incomes - would probably be expressed in monetary terms and the dozens of other indices that ought to be monitored would be judged by comparison with their levels of the previous year. Has unemployment fallen? Yes? Well, that's a movement in the right direction. But income inequality has increased? That's a step back. Can we set it off against the unemployment gain? No, except on the basis of personal ethical judgement: there is no measuring stick, no system of units, to help us out. Roxas realises this: "If there is to be a shift in viewpoint, a system will have to be set up that looks at matters that usually escape individual enterpriseaccounts. This assumes a moral and not a mechanical universe."

Many communities, particularly in the United States, have already started keeping accounts, taking their lead from the Sustainable Seattle project which began in 1980 and which monitors over a hundred factors which affect the quality and sustainability of human life in King County, the administrative area within which Seattle stands. Its 1993 report showed more factors moving away from sustainability than towards it. The county became less sustainable because, amongst other things, its population grew, it used more non-renewable energy, had more traffic, generated more waste, had more children living in poverty, had fewer people who could afford adequate housing, more juvenile crime, more babies with low birthweight and smaller wild salmon runs in local streams. On the

positive side, however, there was an improvement in air quality, the streets became more pedestrian friendly, less water was used, the proportion of those employed who worked for the ten biggest employers fell, more young people were involved in some sort of voluntary service, the libraries and community centres were better used and there was wider participation in the arts.

Jacksonville in Florida followed Seattle's example for largely the wrong reason: it began monitoring its quality of life primarily to show big companies that the city was a good place to relocate in, rather to help its citizens make it better for themselves. Nevertheless the programme has worked out well. It monitors seventy-four indicators covering nine aspects of the city's life: education, the economy, public safety, natural environment, health, the social environment, government/politics, culture/recreation and mobility - that is, 'opportunities for and convenience of travel within Jacksonville and between Jacksonville and other locations.' The indicators were chosen by several committee involving over a hundred volunteers in 1985 and in 1991 another, larger group of people agreed targets for the indicators to reach by the year 2000. In 1993, Red Flag Indicators - that is, serious movements in the wrong direction - included a big rise in the proportion of black people unemployed in comparison with the total population, fewer people feeling safe walking alone in their neighbourhood at night, an increase in the number of newly-diagnosed AIDS cases, a decline in the physical fitness of schoolchildren, a decline in the number of people rating local government leadership as 'good' or 'excellent' and a drop in the number of people travelling by bus.

Several British local authorities are experimenting with the Seattle model<sup>3</sup>. However, just because this will give them a better idea of what is going wrong does not mean that they will be able to put things right. Companies and self-employed businesspeople need to make profits to survive but the mainstream economic system does not provide any method of linking those profits to the extent to which the firms which made them have helped the community to reach its goals. Indeed, it is frequently the firms that cut costs by ignoring the common good that are the most profitable. Moreover, even genuinely community-spirited enterprises are only able to tackle problems revealed by civic audits to the extent that they can do so without seriously damaging their financial performance. In other words, communities are very limited in the extent to which they can employ business, perhaps the most powerful human force for transforming the world, to achieve the collective as opposed to the private good.

This is one of the industrial system's most serious failings and as competition increases as a result of international free trade, the situation will worsen and each firm's freedom to act for the common good will decline. Instead, the world market will more rigidly dictate what a manufacturer should produce, at what price and with what technology. Should a firm try to resist the market's decision because its directors have moral scruples about, say, the emissions a new chemical process would entail, it will make lower profits than its rivals unless it can make a marketing feature out of its refusal to adopt the technique, as the Body Shop has done with its rejection of animal testing, and thus persuade enough people to pay its higher prices. In most cases, however, taking a moral stance would cut



its profits and hence its ability to exploit commercial opportunities, giving its less-moral competitors the advantage and jeopardising its survival. As Adam Smith knew, only if the law imposes morality or public obligations on every firm can all firms afford to observe them.

Competition forces firms to don a commercial straightjacket and act in a very particular way. It is more effectively totalitarian than ever a Soviet central planner was able to be, which is exactly what its supporters like about it because they believe that only one way of operating a company or an economy is 'efficient'. They are happy to admit that their definition of efficiency is entirely commercial and excludes social objectives because they think that non-commercial objectives should be tackled separately once maximum profits have been made. However, as these profits are likely to be made at the expense of social objectives, the ultra-competitive, maximise-profits-first-and-then-use-some-of-them-for-social-ends-later approach is a highly inefficient of achieving them. What our communities need, then, is a form of economy that gives the producers within it sufficient protection from outside competition for them to meet societal objectives as well as their own.

We are a long way from such an economy at present. As a result, one of the largest and, in some terms, most successful examples of community enterprise, the Mondragon co-ops we discussed in Chapter 4, have been unable to protect themselves adequately against the forces of international competition, even though they had no outside investors and their own source of low-interest funds. "The particular genius of the Mondragon co-operators is not that they have found a mechanism to make money or create wealth - something done all the time - or that they have discovered a way to institutionalise the establishment of new business" Roy Morrison writes in his book *We build the road as we travel*.<sup>4</sup> "Those are only part of the means to the end of creating and strengthening the bonds of chosen and discovered community." Unfortunately, since the early 1980s, the wealth-creating means Morrison mentions have increasingly become the end and the goal of strengthening community has been diluted or lost.

When the first Mondragon co-ops were set up, demand for their products was high because Spain was just entering the consumer age and the Spanish market was protected by high tariffs. As a result, 'management was easy, without great burdens, and profitability flowed with abundance' according to Jose Maria Ormachaechea<sup>5</sup>, one of the founders of Ulgor, the original enterprise that became a cash-cow for the system. Even as late as 1980, the Spanish manufacture of domestic appliances, the co-ops' most important activity, was sheltered from foreign competition by a 35% duty. By 1991, however, the barrier had been lowered to only 5% and it disappeared completely with the creation of the Single European Market on January 1st, 1993.

As the tariffs came down in the 1980s, foreign competition increased and the Spanish consumer became much more sophisticated. This made marketing and management more important activities within the co-ops than actual production and the wages of younger people performing these functions - who, as a generation, were in any case less

committed than their predecessors to the co-operative ideal - had to be increased to persuade them not to move elsewhere. To enable this, the old rule that no-one could earn more than three times the wage of the least paid had to be relaxed, first in 1973, when the limit was raised to 4.5 and again in 1983, when it was increased to six. Then, in mid-1992, relativity restrictions on managerial wages were lifted altogether, a move that inevitably damaged the solidarity between the worker-members of the co-ops concerned. The heightened competition also caused the co-ops to concentrate on increasing labour productivity despite the fact that unemployment in the area had risen to over 16%. So, while the amount of capital employed per worker has increased substantially since 1985 and output has also gone up, the number of people in the manufacturing co-ops has been static.

In 1992, the co-ops signed contracts of association with a new organisation, the Mondragon Co-operative Corporation (MCC) instead of with the system's bank, which now only makes about 15% of its loans to them. The word 'corporation' in the new organisation's title is significant. Since it was set up, the MCC has merged some of its smaller co-operatives by moving their worker-members and equipment into a single building. It believes that co-ops with 40-60 members cannot compete and any that cannot meet strict market criteria must die. It is also reducing the number of products produced by the co-ops as a whole and has made profit-sharing between them mandatory. Joint ventures with ordinary private firms are increasingly important and most of its new investment and new employment creation has taken place outside the Mondragon area in places with no co-operative tradition. Moreover, whereas in the past it would have been unthinkable for a worker not to have been a shareholder, this has become quite common as profit- rather than people-driven managers think it desirable to be able to hire and fire staff easily to cope with fluctuations in demand. Overall, much of the consciousness of being a partner with a group of others in one's own enterprise has been lost as a result of the MCC's increased power in relation to member co-ops, the compulsory profit-sharing and the bigger co-operative units themselves. "The Mondragon co-operative system increasingly looks similar to some decentralized US corporations (e.g. Johnson & Johnson)" David Morris notes <sup>6</sup>. In 1995, it abandoned enough of its community and co-operative principles to raise \$96m. by selling shares <sup>7</sup> to outside investors on the stockmarket.

It had little alternative. Making car parts for Volkswagen, Ford and General Motors and holding 35% of the Spanish refrigerator market against competitors like Electrolux and Bosch who also manufacture in Spain impose extremely tight commercial straitjackets. Consequently, once the directors had decided that executives' wages in Mondragon should be equivalent to those outside, the organisation was well on the road to becoming conventionally commercial. What other path could it have taken, given that three of the ways we identified in Chapter Two of breaking out - lower wages, shorter distribution chains and the protection afforded by being able to price part of the output in a community currency - were not available to it, and the fourth - access to cheap funds through a community bank - was no longer as important as in the past? Mondragon may still be a network of community enterprises but it is not serving a community market. If it

was, it would now be operating in a more stable, less competitive, commercial environment under a very different set of constraints and obligations.

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2003 update on Mondragon by Caroline Whyte

Mondragon Co-operative Corporation resembles a conventional multinational more and more closely. It now has factories in low-wage countries such as Thailand, China and Mexico, and has formed partnerships with other, more "normal" corporations. Even within Spain, approximately one-third of workers are now non-members of MCC. The changes have caused strong protests from within the organisation as well as from outside, but those in favour of them argue that nobody seems able to come up with a viable alternative for producing the kind of things that the Mondragon co-ops produce, in the current economic conditions.

Tim Huet, a San-Francisco based lawyer who directs the Center for Democratic Solutions, a nonprofit in San Francisco that advises co-ops, wrote an interesting article for GEO magazine in 2001 in which he contrasts Mondragon's strategy with that of Italian worker co-operatives, which he believes have managed to adapt successfully to the changing market while keeping to their co-operative principles.

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The chief obligation likely to be placed on community enterprises in the type of local economies we are hoping to build will be the acceptance if a business makes profits as a result of the community's help and sacrifice, those who own it should accept that its profits are not theirs alone to do with as they wish. They are, in part, the community's profits too and should be used with that in mind and should certainly not be spent or invested outside the community's boundaries. This is one of the things I had in mind at the beginning of this chapter when I wrote of the need to strike a new balance between community and personal goals. While some writers define community enterprises as businesses owned and controlled by community groups, I regard any business as a community enterprise if it supplies the wants or needs of a community and its owners accept that they have a moral obligation to balance their community's interests against their own.

It could be argued that if a local firm makes its profits in the mainstream economy using labour, capital and environmental goods provided by the community on a full-cost basis, its owners ought to be free to use its profits as they wish. But what is full cost? Isn't every successful business in the world today making additional profits because it has access to many, many factors for which it never pays the full amount? Indeed, the industrial system might never have developed - and would certainly not have developed in the way it has - had businesses not been subsidised on a massive scale by taxpayers, the environment and society. All firms therefore have social obligations which I suspect extend far beyond

whatever they pay in taxation and which, if they recognise, they cannot discharge in the mainstream system because of the constraints imposed on them by the forces of competition.

Competition can work against society in other ways too. Take the grocery trade. Under the conventional, profit-driven approach, the owners of every grocery shop are under permanent pressure to increase their turnovers even if this means forcing rival shops to close down. This is because the conventional business world works on the basis of dog eat dog rather than live and let live and any shop which does not behave accordingly is likely to be weakened and then swallowed up by one of its competitors. But a business system which leads to rival shops closing down is scarcely likely to advance the community's interests as it will mean a loss of choice and convenience for some people and a step towards monopoly for them all.

What we need, then, is a system which allows a grocer who believes his vocation is to serve the people of his area rather than to maximise his profits to stay in business. Such a trader would have a very different approach to his work and extract very different satisfactions from it. He would pride himself on his standard of service, the quality of his goods and their range of choice. He would accept that only a certain amount of groceries could be sold in his district and that if he sold more, fellow-grocers, whom he would regard as colleagues rather than competitors, would sell less, damaging their prospects and those of their families and, should they go out of business, making life difficult for people who found it more convenient to shop with them. Consequently, if he needed to improve his income, he would try to find ways of doing so which would not harm his neighbours. Perhaps these would involve buying-in goods imported from outside the community such as coffee or tea in a less processed state and processing and packing them in his store, capturing as much added value as possible for himself, and hence for the community. Alternatively, he might find another activity altogether which could be run alongside his main business and which no-one was already carrying out.

A change in the way shopkeepers and other businesspeople are paid by the community for their work might give them the freedom to work this way, as Dorit Seemann has found with her wholefood business in Hamburg. Like most new businesses, Seemann, who was at different times a bookseller, a kindergarten teacher and a shipping manager before she began selling organic food, found she was losing money when she opened *Der andere Weg* (The Other Way) in 1986. This was because if she put a sufficiently large mark-up on the volume of goods she was selling to cover her overheads, her prices immediately became uncompetitive. The conventional solution is to grit one's teeth and try to cover whatever losses come along in the hope that sales will increase by enough to make the business profitable before one's capital and credit facilities are exhausted and the bank or unpaid suppliers put the business into liquidation. Unlike most new businesses, however, Seemann did not adopt this approach. Her other way was to invite each of her customers to help cover the shop's overheads by paying 50DM as a monthly subscription and those who did were able to buy goods from it at their actual cost. Enough people took up the idea to make it work and according to Seemann<sup>8</sup>, this

radically altered her relationship with the people she supplied because, instead of setting her prices at the highest level she felt her customers would tolerate, the challenge was now to buy as well as she could on her subscribers' behalf and to make the shop and its services as attractive and convenient for them as possible. The tension inherent in the shopkeeper-customer relationship had gone: Seemann was now her subscribers' agent rather than their adversary. Her customers benefitted because anyone who spent more than 150DM at the shop in a month was able to make a substantial saving and had every incentive to do all their business there. Subscribers felt they were part of the business and the level of pilferage dropped. Two years later Seemann was able to open a second shop and the business is still expanding.

The potentially malign influence of competition on one level and its absence on another presents community-scale economies with a problem. In the world economy, competition is the main method of ensuring that businesses do not make excessive profits at the expense of their customers. In a local economy, however, competition of sufficient intensity for this method of profits control to be effective is unlikely to be possible. Some other system has therefore to be found both to regulate the forms which competition can take in activities in which a reasonable number of similar businesses operate and also to prevent monopolies and oligopolies making excessive profits in activities where they do not. The need for such a system is not new and in the Middle Ages, the crafts guilds regulated competition between members' businesses while the problem of monopoly was tackled by governmental and ecclesiastical authorities through the concept of the 'just price', an idea which may soon acquire a new lease of life in a community context.

Production in the early Middle Ages was not geared to accumulation and profit but to guaranteeing the existence of every member of society. For St. Thomas Aquinas, the period's leading thinker on how a balance between personal and community interests might be struck, trade was not the sin it had been for earlier Christian theologians but was dangerous as it tempted its participants to sin. Aquinas, who died in 1274, taught that a man had the right to sell his stock or output for enough to maintain his status in society and to keep himself and his family in reasonable comfort but anything beyond that was sinful profiteering. Trading for the sake of gain was wrong.

Aquinas's approach enabled just prices to be calculated. "Prices were only marginally affected by the action of free and uncontrolled market forces.... Two factors - public need of the article and due return for its manufacture and transportation - were sufficient criteria for determination of the just price" the Russian mediaevalist, Professor Aron Gurevich writes in his *Categories of Medieval Culture* <sup>9</sup>. "Determination of the just price was in the hands of responsible and respected people who were mindful that the norms of truth and general justice were here involved."

A good example is the 1367 Statute of Kilkenny which set out in detail how a just price should be calculated. "It is ordered that the mayor, sovereign or other chief officer of the town should call before him two of the most discreet men of the place, as well as the merchant to whom the said wares belonged, and the sailors of his ship. The merchant and

the sailors were to state, on oath, the first cost of the goods and the expenses of transportation. Then the mayor or chief officer of the town, and the two discreet men, were to name a price at which the wares must be sold."<sup>10</sup>

Other measures were also used to prevent profiteering. For example, London had a regulation to prevent anyone buying up cargoes of essential goods in order to corner the market. Thus when a shipment of coal arrived it had to be sold retail for the first eight days, each family being limited to fifty basketfuls. Only then, in order to empty the boat, could any remaining coal be sold wholesale. And naturally, the shipper's retail margin was determined on a just price basis.

The other regulatory force of the period, the crafts guilds, first appeared around 1100 in Italy, the Rhineland, Holland and Belgium and spread quickly. They were both social and commercial in character. On the commercial side, "the crafts guilds ... were concerned with maintaining a steady volume of business for their members. Their chief aims were a satisfactory standard of workmanship, and a fair price for its products, and the restriction of the number of apprentices a master might keep, the hours he might work and the tools he could use" Antony Black writes in his book *Guilds and Civil Society*.<sup>11</sup> "The general aim was to prevent the expansion of one man's business at the expense of others." In some guilds, if a member was able to purchase raw materials at a bargain price he was expected to share his good fortune with his fellow members and many guilds required that workshops be open to the street so that it was possible to check that regulations were being observed.

Opinions differ on whether the guilds maintained a fair balance between their members' interests and those of the wider community. The current consensus seems to be that the guilds became more self-serving as attitudes slowly changed in the decades immediately before the Renaissance. However, there is no doubt that the guilds were of great non-economic benefit to their members because they conferred social status and provided, as a result of the oath that members took to each other and the frequent communal feasting, a network of colleagues and friends who could be relied upon for practical and monetary help at times of sickness, poverty and death. Black says that the guilds enabled work to take on the character of a vocation and Gurevich can scarcely contain his enthusiasm for the system:

Belonging to a guild was connected with a complex of emotions which a man shared with other members: pride in his guild whose reputation and authority he would jealously defend, participation in meetings and general decisions, assertion of his dignity as a fully-fledged burgher vis a vis the town patricians and the nobles, and a feeling of superiority vis a vis the unorganised craftsmen, the apprentices, pupils, servant - the common people of the town. A master craftsman sought and found in his work not simply a source of material prosperity: his work gave him satisfaction in itself. Hence his work and his product could be a means of achieving artistic pleasure. Perfection in a craft was handed down from generation to generation, forming a tradition of excellence and pushing the productive and the artistic possibilities of the craft to their utmost limits. A craft was a

skill, and a skill was artistry. The free work of a master craftsman within a guild was a means of asserting his human personality and heightening his social awareness.

The union of productive, ethical and aesthetic principles in the work of the master craftsman gave this work very high social significance. It provided a basis for the development of the human personality to the maximum possible in the corporate society of the Middle Ages. The burgher was a citizen of his community, an owner, a working individual. The multilateral nature of his social relations raised him above the representatives of the other orders of feudal society.

A modern organisation that has unconsciously adopted some of the features of a craft guild is the Briarpatch in San Francisco, an informal network of small businesspeople who, as their by-laws state, 'are in business primarily to serve people' rather than to become rich. Significantly, in the original, the word serve is underlined. Another guild-like feature is that members' financial records are 'open to all for examination: employees, customers, suppliers and anyone else who is interested' an echo of both the concept of a just price and of the open-to-view workshops guildmembers had to maintain.

The network takes its name from the Uncle Remus stories in which, while Brer Fox and the other animals led serious lives and depended on their cunning, Brer Rabbit had a wonderful life of fun and play in the briarpatch. It was set up in 1974 by people who had campaigned against business and government in the social, political and environmental upheavals in the United States in the late 1960s, and then, in the early 1970s, found that they were in business themselves. "We didn't want it to be just business as usual. We didn't want to be like Dow Chemical [which made napalm for use in the Vietnam War]. We wanted to do business in a different way" says Roger Pritchard, an Englishman who joined the network early on and who is now a small-business consultant and part-time co-ordinator of the 50-member East Bay Briarpatch which operates in Berkeley and Oakland, across the Golden Gate bridge from San Francisco.

"We had a common ethic of honesty and openness, sharing, dedication to excellence in whatever we did, the idea of having fun in our business and basing it on what we cared about and were good at, and a policy of taking care of people who did business with us. We found that this was not the way business normally worked so we needed to support each other in making those principles work for us in business." This meant that they had to set up their own organisation "but one with no officers and no prestige because for us, prestige equalled politics" Pritchard says.

Briars aim for right livelihood, which Pritchard says:

makes work a central human activity with the responsibility for its meaning resting squarely in your hands. It requires that you be honest with yourself and work diligently to develop your faculties and skills. Right livelihood empowers you to do what you are really good at and love to do, involves you with the outside world in a compassionate way, aims for non-destructiveness, and integrates work and personal life.

*Short Circuit* by Richard Douthwaite: Chapter Seven

People who seek right livelihood are involving themselves in reducing consumption, conserving natural resources, cutting down pollution, eating more simply and nutritiously, opposing nuclear war, bringing more spirituality into their lives and developing personal support networks to help each other do these things. They find that their lives are more in balance, more centered, more simple, clear and focused. They are no longer strung out in that cycle of material consumption which is so meaningless all by itself.

There have only been three co-ordinators since the Briarpatch was set up. Claude Whitmyer held the post when I visited San Francisco at the end of 1993. "Because the support of the naturally large family and the clan or community has been lost to us, we must consciously recreate it as the first phase in finding our right livelihood" he says. "There are three effective steps to begin the process. First, focus on the people in your life; second, find the right people to support what you want to do; third, give back more than you get."

Briars define themselves as people who:

1. Have an insatiable curiosity about the way the world works.
2. Seek to do the work they love and make a living at it.
3. Believe it is more important to provide the highest quality product or service than to get rich.
4. Prefer co-operation to isolation.
5. Prefer honesty and openness to deceit and secretiveness.
6. Believe in self-reliance and social responsibility.
7. Believe in simple living and environmental preservation.
8. Believe in openness and the sharing of resources.
9. Have been in business long enough to have a track record.
10. Believe that joy is essential to a fulfilled life.

Although would-be Briars are expected to be in sympathy with these ten points and there is no formal screening process, Pritchard can only remember one person who was manifestly out of place but turned up meeting after meeting. "It was hilarious" he says. "Normally, there's no problem because there's no prestige attached to being a member."

The network holds a 'brown-bag' lunch in San Francisco on the first Wednesday of each month to which anywhere between ten and 25 members come along. They sit around in a circle, eat whatever they've brought in their bags, and talk about what their business



needs are and what help or ideas they can offer other members. Less regular activities include parties, classes, workshops and seminars. A directory of members is available and 'when there is the energy necessary' a newsletter.

A lot of problems are solved at these lunches and by what Whitmyer calls his 'telephone ministry' which gets between twenty and fifty calls a month. Women, who make up 59% of the Briar membership, apparently find these phone contacts particularly useful. However, for anything more intractable, a volunteer consulting team is available free of charge to call out to businesses on Wednesdays. The team helps fifty operations in a typical year. "You can learn a lot from these visits without being told anything just by looking at things like how clean the premises are and the state of the books" Pritchard comments. The success of these three types of advice and support has been remarkable: only 5% of Briar businesses fail in their first three years in comparison with the US average of 80%.

Anyone wishing to join the Briarpatch posts off to their nearest co-ordinator a one-page letter outlining who they are, what their business does and what their three or four main problems are, along with a six-month subscription, the amount of which is entirely up to them, the average being \$50. Pritchard or Whitmyer then telephone to make an appointment to call. At the moment there are 150 paid-up members in the Bay area, down from as many as 600 in the early 1980s. Pritchard is not worried by this decline. "There is a tacit assumption that if something is successful it goes on. That's very wrong. The time may come for letting it go."

He points out that when the Briarpatch was launched, the ideas behind it were very radical but now they no longer have the same intensity because the mainstream business community has taken so many of them on board. Whitmyer agrees <sup>12</sup>: "Before 'quality circles' and 'total quality' there was Briarpatch. Before 'excellence and ethics' there was Briarpatch. Before 'green business' and 'green marketing' there was Briarpatch. The sudden burst of businesses claiming to be socially and environmentally responsible has been enough to make the most trusting among us a bit suspicious."

Pritchard would probably not be in business himself without the Briarpatch. He was teaching at a university in San Francisco when he developed an idea for a business and, since he had no commercial background, joined the network for help and support to set it up. What he learned caused him to abandon the idea - 'it would have been a disaster' - and to start a business helping people to open or run socially-responsible businesses instead. He did this by 'apprenticing' himself to a consultant in the Briarpatch to learn the trade - a typical and common example of Briars sharing. "Eighty per cent of my work is morale-related, helping people who are freaking out or have lost their business nerve" he says. "Often business disasters are caused by personality problems or blind spots. I was involved recently with a clothing business in which the two partners were not speaking to each other and, after three attempts at mediation failed, I helped them structure the divorce. In another case, I found a businessman had not kept any books so I got in a book-keeper to prepare them but a month later he was totally uninterested in what they

said. Naturally, the business failed, but at least that man had learned what he did not want to do and moved on, so it wasn't necessarily a disaster."

Most Briar businesses are small - 58% are single-person and 85% have less than seven employees - and most of their owners want to keep them that way. For example, Pritchard himself decided not to employ anyone in his consultancy because his perfectionism made him bad at delegating. Michael Phillips, who discusses right livelihood in his important book *The Seven Laws of Money*<sup>13</sup> and who played a key role in setting the network up tells<sup>14</sup> the story of a graphic designer-Briar, George DeWoody, who began turning away work when he had five employees because he wanted to continue to design himself and not supervise other designers. Other businesses in the network including a toy distributor and the Down Depot, which cleans feather-filled clothing and duvets, have turned down opportunities to open franchised outlets and yet have helped other people to open similar entirely independent operations. "The scale issue is crucial" Pritchard says. "The trouble is that the role models put about outside the network are all about high-flying entrepreneurs."

Although the Briarpatch, like many of its members, does not advertise since its structure and resources prevent it handling enquiries, a number of articles have been written about it over the years and similar networks have been set up elsewhere in the US and in New Zealand and Sweden. Another story Michael Phillips tells is of a Swedish Briar, Sven Olmstead, and his experience with open accounts books:

"Sven builds homes, offices and factories for a fixed contract price and lets his customers see his financial statements. Sven explains the results: 'When clients see that I have lost money on a project, the client is very appreciative of the hard work and excess effort my company made to do a good job for them; these clients always come back to me for the next job. When I make a large profit it is visible and the clients also come back, insisting that I offer them low bids - after all, I 'made lots of money on the last job I did for them.'"

An attempt to start a British Briarpatch was made at the end of the 1970s in that hotbed of economic experimentation, Totnes in Devon, but it failed to take off apparently because the number of potential member-businesses was too small. The consensus seems to be that a minimum of twenty members is needed to start a network and seventy to keep it running. The Business Network, which was set up in London by Edward Posey and Frances Kinsman in 1982 and ran for eleven years did not set out to be a Briarpatch. Its purpose was to link 'people interested in transforming business so that it embodies a vision of the wholeness of life and for the human spirit' its brochure explained. 'It aims to foster a new holistic approach to business which reflects the interdependence of the

individual, business, the community and the environment.' It did not, however, offer a consultancy service nor endeavour to help members solve their business problems. Indeed, it was not set up for small businesses at all and members were not drawn geographically from any one place. "Our aim was to get mainstream business people to think of the spiritual dimension, of different ways of dealing with business" Kinsman says <sup>15</sup>. What killed it eventually was that New Agers who wished to get into business ('The sweaters' as Kinsman calls them) came to outnumber the suits. He decided to let it die when two merchant bankers who had been dragged somewhat unwillingly to a meeting by their wives or girlfriends were forced to participate in a circle dance, which both they and Kinsman found extremely embarrassing.

At present, outside the Briarpatch at least, very few people who run a small business are happy and fulfilled. Indeed, most would admit they are serving a monster which allows them no part of the day as their own and which so dominates their thoughts that they cannot maintain other interests. Any time they take out from their work is ruined by worries about tasks they should be tackling. Problems accompany them to bed at night and are there when they wake in the morning. They become boring to be with and bored with themselves. I know, because I was such a person.

Above all, the proprietor of a small business is alone. This is because he or she is unlikely to have anyone prepared to listen to them talk about the problems, opportunities and the humdrum day-to-day activities of the company in sufficient detail and at adequate length to be able to give the owner both the chance to develop their thoughts by talking things through and the informed yet dispassionate and objective outside view they require. Too often, for lack of anyone else, the owner's husband or wife is forced to attempt to fulfil this function. This is generally a mistake, particularly when the family's income is threatened by the business's problems, for the home immediately ceases to be a refuge from the stresses of the commercial world.

"A one-man show is an indicator for disaster" an official of the Irish Industrial Development Authority once told me. He was right. Few people have all the skills, knowledge and personal characteristics required to start up and manage a successful enterprise. Someone who is a first-rate sales person gets excitement from winning orders, just as an angler does from catching fish. Sales people are quite happy to spend hours trying to tempt a big customer to take their bait but once the order has been won, they lose interest almost completely. The routine grind of assembling the goods, packing, invoicing, despatching and finally chasing payment is not for them, although, rationally, they know that it is every bit as essential as getting the contract in the first place. They'll probably screw up enough motivation to do it if they have to but when it comes to keeping records for irksome things like VAT, they can always think of something more important to do - like ringing so-and-so to see if he needs more supplies yet - and the job will never get done.

Similarly, anyone with a clerical or accountancy background might get great pleasure from keeping tabs on the stock and cash side of things but is unlikely to be an

enthusiastic wheeler-dealer as well. And people who derive enormous satisfaction from making or designing things will normally find it hard to buckle down to either selling or keeping the books. A mix of distinct personality traits which is rarely, if ever, found in the same person is needed to run a business successfully. Thus a sales business needs at least two people - one to sell and one to look after the organisational side. A manufacturing business has to have a minimum of three: one each for production, sales and administration.

True, a business can employ people with the traits the proprietor lacks but employees create almost as many problems as they solve because the operation has to trade on a larger scale to develop the extra turnover the increased wages bill demands. There are other drawbacks to employing people too and Claude Whitmyer recently wrote a book *Running a One-Person Business*<sup>16</sup> together with Michael Phillips and Salli Rasberry, a Briarpatch volunteer consultant, which includes a two-page table entitled 'Ten Reasons not to Hire an Employee'. "The responsibility of regularly paying someone else to work for you can become a horrible burden....gone are the days when you could use slow business periods to relax, take vacations or learn new skills...you have to give up your own pace for the employee's pace.... [and] schedule your work in a more normal way" are some of the phrases they use. But even if the business could support an employee or two, the difference in status between worker and boss means that the latter would find it hard to go to the former for advice. So, without a Briarpatch, all a sole proprietor can do is to employ a consultant, assuming they know of one with affordable fees and the right attitude, or find a partner with a complementary set of abilities, a difficult task and a minefield in itself.

What I am arguing here is that almost every business is, by its nature, a collective enterprise but the present system makes it very difficult to organise one as such and in small firms a single person usually has to take all the risk and accept all the responsibility for whatever happens despite being inevitably ill-equipped to do so. Naturally, the strain causes many proprietors to crumble under the load and, in general, only the ill-informed, the desperate and the greedy want to run businesses on their own. Indeed, given the pressures they impose and the miserable lifestyle they provide, the only rational reason for anyone to want their own business these days is to become rich as soon as possible and take early retirement. We recognise this motive when we speak of a self-employed person being 'in business for himself' - we do not see any public service element being present in commercial life nor, as we have noted, does a hyper-competitive system permit there to be. But Roger Pritchard thinks that many people who go into business to become rich are unsuited to it. "We have found that people who go into business to make money are impatient, act badly and alienate people" he says. "They don't have the patience and persistence to make a business work."

Forcing those who get involved in small business to accept all the pain and take all the gain is obviously bad for both them and society. In the community economy, business must be a means of service which allows those who take it up to gain respect for what they do rather than being despised for being engaged in an entirely self-seeking activity

as at present. In such circumstances, a different type of person would enter commercial life, someone who would gladly give up the owner's claim to 100% of a business's profits if they did not have to carry 100% of its burdens and risk losing, through personal guarantees, 100% of their homes. Why is there such a huge difference between the way we treat, say, a gymkhana society which covers its deficit with a dinner-dance and whose organisers feel free to ring up anyone and ask them to help out and, say, a local baker and confectioner who has to make a profit and who finds there is no-one to help when he runs into trouble? The answer, of course, lies in the ownership and not the relative importance or pleasure-potential of the two activities. The horse show is a community activity whereas the baker is seen as simply trying to make a profit for himself.

If we are concerned about increasing the range of economic activities in our communities we will therefore have to devise a new type of communally-owned commercial organisation which will have some of the features of a craft guild, some of the Briarpatch and some of an investment trust. Its main objective will be to serve the people of the area in which it is located rather than to make profits for owners or investors. As a result, it will be free to seek donations to balance its books and call for volunteers to help and advise its paid staff. Public-service radio stations in the United States are run on approximately these lines, broadcasting worthwhile programmes, taking a limited amount of advertising and covering their losses in an appeals week once a year. Mondragon as it was in its early years is another good model because it had a mechanism for limiting the wages paid in enterprises in its system and redistributing the resulting profits, thus balancing the interests of the individual shareholder-workers against those of the community as a whole. It also had a mechanism by which a group wishing to set up a collective business could be part-financed and advised on how to do so by people who had helped many other businesses establish themselves before. Although Mondragon has been forced to change recently, it still has a lot to teach.

Indeed, one American company, Thermo Electron, a diversified technology company which makes everything from alternative energy systems to artificial hearts in Waltham, Massachusetts, seems to have either re-invented or copied part of the Mondragon model with great success to make profits for itself rather than to benefit a community. The company has launched several, small high-tech businesses by combining "the advantages of a large company with those of a start-up" according to its president, George Hatsopoulos<sup>17</sup>. Innovators working within the company are given a small stake in their project, loans from the parent company and all the technical and administrative support they need to get them past the point at which most start-ups fail. Then when a project has proved itself, it is converted into an independent firm able to raise capital by selling shares although Thermo Electron always keeps a majority stake. Between 1985 and 1994, it launched ten companies and plans to spin-off another fourteen by the year 2000. Although 85% of US start-ups collapse "we won't let [ours] fail" Hatsopoulos says.

But perhaps the best current example of an organisation close to the Mondragon model is Radical Routes Ltd., a co-operative of co-operatives with offices in Manchester and Birmingham which accepts loans from ethical investors under the Industrial and

Provident Societies Act to re-lend to its twenty members. As well as finance, Radical Routes provides business advice and technical and personal support to members of its member-co-ops which include Organic Roundabout, which each week in 1995 was supplying over a thousand families in the West Midlands with a box of organic vegetables. As a result, it has not so far had a bad debt. However, it is making interest-bearing loans rather than providing equity and it is national rather than regional in scope - its members are as far apart as Leeds, Wales and Cornwall.

Perhaps what is needed is a community co-op in which every family in an area could hold shares. This would enter into partnerships with individuals and groups wishing to start businesses in its territory, conduct feasibility studies, help develop business plans, provide equity capital, and carry out those aspects of the businesses' administration in which the principals were weak. Most importantly, these co-ops would support and advise those running the businesses in which they were involved and link them with the other activities they were helping.

If local markets are going to meet a diversity of needs they will have to have a diversity of small producers and community co-ops are consequently going to have to become involved in a lot of small-scale projects, many of which will be home-based. Building an alternative to the industrial system does not mean duplicating it in terms of its scale, technology or location. In *Divisions of Labour*<sup>18</sup>, his study of life and work on the Isle of Sheppey in Kent, R.E. Pahl points out that in pre-industrial times 'work was carried out by households and was a combination of self-provisioning subsistence, wage labour and by-employment'. "Regular, full-time employment at a single job was exceptional in the 18th Century" he adds. A mixture of activities was the norm then and it is likely to become so again in a post industrial period. Most people will do many more things for themselves and their families, for which of course they will not be paid, supplemented by work for their neighbours - either directly or through a community co-op company - for which they will be paid mainly in a local currency, and for industrial-system employers, for which they will be paid in national or international notes such as the Euro. Even some of the work for mainstream employers will be done at home or in workshops close by.

This will affect housing demand profoundly. Most urban accommodation has been built or converted on the assumption that people want to do little more than eat, sleep and watch TV at home. It rarely provides room for a pram, let alone a bicycle, and many properties will prove entirely unsuited to the new working patterns. In the country, of course, more space is available and it is significant that Jim Connolly whose work helping unemployed people move from cities to the countryside is described in the panel sees access to a garden and a workshed being among the major gains for those who move out of town.

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## PANEL: THROWING RURAL DE-POPULATION INTO REVERSE



*Happy to have left the city: the Boland family. Anti-clockwise from left are Noeleen, Bernadette (10), Maria (8), Noeleen Jnr (6), Emma (5), Anthony, Rebecca (9), Anthony Jnr (11).*

In 1845, just before the Great Famine, 13,000 people lived on Loop Head, a bleak finger of rock and acid soil sticking out in to the Atlantic in County Clare in Ireland. Today, it has only 1,300 inhabitants and for twenty years after he set up his studio and foundry there in the early 1970s, Jim Connolly, a sculptor, watched the depopulation process continue, with house after house being boarded up and abandoned as the elderly occupants died or families moved away.

As the parish's population fell, the quality of life available to the remaining inhabitants deteriorated. Shops and pubs closed and schools were amalgamated or lost teachers. Signs of dereliction were everywhere. Like many places in rural Ireland, Loop Head seemed to be caught in a vicious circle in which, because some families left, others had to leave too. According to an estimate prepared for the West of Ireland as a whole by Dr. Tom Boylan of University College, Galway, whenever four families leave an area, another family nearby loses its income and might have to move away too because of the reduced amount of local spending going on.

What could be done to stop West Clare's decay? There were no jobs in the area to attract incomers so Connolly's first thought was that craftworkers like himself might be a solution as they brought their work with them and were practical, resourceful and resilient people. But then he realised that the unemployed were another group which could draw their income anywhere and that even if they stayed on the dole, fifty resettled families would pump at least £500,000 into the local economy and gain personally as well, not least by bringing their children into a clean, safe, crime-free environment where they would be in much smaller classes in school.

Excited by this idea, early in 1990 Connolly went on to the Gay Byrne Show, Ireland's most popular daily radio chat show, to talk about it. "I'd no notion of setting up an organisation myself" he says. "I just wanted somebody to take up the idea. My attitude

was 'let this cup pass from me...' But when over a hundred letters from families wanting to move out to the country from city housing estates arrived at his home after the broadcast, he felt that he could not just ignore them and a few weeks later he began meeting families off the Dublin bus in Kilrush on Friday evenings, taking them to a bed-and-breakfast for the night and then driving them around the district the next day so they could get an idea of what it was like and what sort of rented houses were available.

A lot of the expenses he paid himself. "I hadn't realised how close people living on the dole are to the financial edge. They just don't have the money for anything extra. One woman sold her washing machine to be able to buy the bus tickets for the journey down."

At the end of the year, six families with twenty-one children between them had moved west out of Dublin and, by early 1995, 161 other families had been resettled too, predominantly in Clare but with at least one family going to rural areas in a total of sixteen other counties. Thirty-five families moved in both 1993 and 1994, a small fraction of the number of applications received. "We've 3,000 people on the waiting list and whenever we get any publicity, dozens more letters flood in" says Paul Murphy, who administers Rural Resettlement Ireland, the organisation Connolly's one-man effort became, from a Portakabin a short distance down the road from Connolly's house.

"Many, many more people could have moved if we had been able to find suitable houses" says Murphy, a former Dublin bus driver who moved out of Dublin with his family under RRI's auspices himself. Connolly agrees, and complains about the number of houses being bought up in coastal areas by wealthy people wanting holiday homes. "Some of those houses would otherwise have been rented to us" he says. To get around this problem, RRI has started a campaign to get every rural parish with a declining population to find a house for a resettled family each year for the next five years and over thirty parishes have already joined up. It is also building five houses in partnership with a voluntary housing organisation and purchasing another five houses with 90% grants from the Irish government.

But finding enough decent, dry houses which are available to rent on a long-term basis at a figure which families on social welfare can afford will always be a problem and one of Connolly's ambitions is to establish a £1m. revolving fund to buy up properties in need of repair, renovate them, and sell them on to migrants using shared ownership mortgages. These involve the householder paying a rent for half the house and a mortgage for the other half. Already, about thirty of the incomers are buying their houses with share mortgages from Clare and other county councils and RRI has been trying to persuade Dublin Corporation to give similar assistance to any of its tenants who surrender a council house and move to a rural area. It argues that for every family which leaves the city, the Corporation gains by not having to build a new property for someone on its housing list.

RRI is also trying to involve the commercial banks and the government in providing shared mortgages for low income families who move to rural areas and seems to be having some success. "Although almost all resettled families are unemployed" Paul Murphy says, "the Bank of Ireland has agreed to make mortgages available to them at 6% interest to cover a third of the price of a property if another third can be covered by a



government grant and the balance by RRI's revolving fund. We plan to use money we've been promised from the United States through the Ireland Fund. The problem at the moment is that some officials in the Department of the Environment [which looks after local government matters in Ireland] seem to be dragging their feet."

Given the huge imbalance between the number of city people who apply to move and the supply of houses that can be found for them, how does RRI select the families it will assist to re-locate? "We don't. It's a self-selection process" Murphy says. "The ones that write two or three letters and generally keep in touch are asked to get references for us from their children's school and their local authority. When we get those, they go on to our active list and we visit them to make sure that they have a positive attitude and are not just wanting to move out of desperation. We also ask them to take a course which takes two evenings a week for six weeks and covers such things as coping with change and cultivating a garden." Indeed, the prospect of getting a house with a patch of land on which they can grow things and perhaps a shed where they can do some carpentry or take up a craft are two key reasons why many families want to move to the country.

So far, only twenty families who moved out of the city with the help of RRI have decided that they had made a mistake and moved elsewhere. "The main reason they left was that they were not well enough acquainted with the area before they came and consequently did not really know what they were letting themselves in for" Murphy says. One couple, Antony and Noeleen Boland, decided to return to Dublin after one of their six children, Rebecca, choked on a piece of meat and, unable to breathe, turned grey. Without a telephone and with their nearest neighbours living over a mile away, there was no-one to whom they could turn for help. Noeleen eventually managed to clear the child's windpipe with her fingers but the close shave convinced her that she should not risk her children's lives by living in such a remote place any longer.

Their return to the capital did not last very long, however, and they moved back to Clare after joyriders drove a Ford Fiesta into their garden. "I was watching my son out the window the next day talking to his pal" Antony Boland says. "The mate was saying to him, 'Did you see the Fiesta last night? Wasn't it great?' 'Yep' my son says, 'fab'. I was getting worried about him. Now he's out in the fields with me saying, 'Da, how long does it take to be a vet? He wants to be a vet or a farmer, not a thief.'"

Now, the main thing that Noeleen misses is the shops. The family has no car and groceries are delivered on the back of a tractor. Antony, who misses Chinese takeaways, is still unemployed but is on the board of management at the children's school.

"Almost all the families who come have experienced long-term unemployment and the difficulties that inevitably go with it. Problems such as a lack of confidence and marital, emotional and alcohol difficulties will not be cured by a move to the country" Jim Connolly says. "People are not immediately better off when they get here: they are pursuing a dream. However, by taking a brave step, you can boost your spirit and your sense of enterprise. Some are very bouyant, fabulous people." Families with children at junior school generally experience fewer problems with re-location than those with teenagers. "Younger children make new friends more easily. Teenagers are the problem because they miss the group with whom they have been going around" he says.

Certainly, giving up a warm, dry, relatively-spacious Corporation flat on a secure tenancy and saying goodbye to everyone they know imposes severe strains on those going through it. "Every family that moves experiences financial hardship too" Connolly says, explaining why he has been trying to persuade the Irish government to make grants of £1,000 available. "Furniture removal is not the only expense. Other immediate costs include bus fares from Dublin, fuel, the purchase of food, local travel, some decoration and so on. These have to be covered by social welfare payments and often these payments are delayed by the move so that families have to borrow from whatever source they can. The financial difficulties caused by the move have contributed to some families' decisions not to stay."

The local reaction to the incomers is generally favourable. "In a few cases, individual families have turned out to be troublesome tenants and have left unpaid bills but other families resettled in the same area do not seem to have suffered as a result. On the whole, families are judged on their merits and there are many examples of how schools, shops, sports clubs and so on have benefitted" Connolly says.

While it has not yet agreed to the £1,000 resettlement grant, the Irish Government's attitude to RRI has been positive and it currently pays roughly half the organisation's £80,000 annual running costs. These cover a staff of three in Clare - Paul Murphy, his secretary, Michelle Cahill, and Derrick McDonagh, the field officer, who visits community groups including those in parishes which have undertaken to house a family each year, investigates properties and helps families settle in. There is also an office in Dublin run by Catherine Stapleton. So far, individual benefactors have covered the shortfall. For example, President Mary Robinson passed on a £25,000 award she had been given after a visit in 1994 and the Portakabin was purchased with using funds sent by a woman in the United States.

Clare County Council has also been very supportive and both the assistant county manager and the county solicitor sit on the RRI board. "I've got a fantastic board of directors" Connolly says. "I needed people of experience and standing to give the organisation credibility and when I asked the county solicitor to join he said 'I don't need to think about it. It is a privilege.' The Bishop of Killala in Co. Mayo is also a member."

Nevertheless, Connolly is frustrated because, despite its support for RRI, he believes that the government response to rural depopulation has been entirely inadequate. Projections published in 1994 suggest that the population of the West of Ireland is likely to fall from 551,000 in 1991 to 441,000 by the year 2011 as a result of outward migration and the drop in the size of the average family. "The government has no policy towards the rural areas and without such a policy huge areas of our beautiful countryside will become wastelands without people" he says. Later, Paul Murphy mentions that a government report he has just received states that the vicious circle of decline is terminal in certain parts of the country and that their communities cannot be saved.

Connolly argues that both the depopulation of the countryside and the social disintegration in the cities - the crime, the unemployment, the drugs - are due to the economic system's failure to provide an adequate way of valuing resources and sharing them out. "Money is not an accurate measure of value" he says. "The real wealth of

Ireland includes space, peace, access to culture, natural beauty and a million other things which have always been available to those with money but have not been included in the equation defined by the dominant economic order. I see this beautiful country around here and not a soul in it but we could share it, in a practical way, with not just hundreds but thousands and maybe tens of thousands of families to everyone's benefit.

"The philosophy whereby our country functions at the moment is 'I'm all right Jack'. This is deadly and inhumane. To my mind, sharing is the only philosophy that counts. My personal concern isn't for the grass, or the lonely roads, or even the lonely houses. It is for the people who might live here and the fact that they could have better lives". "

RRI's work demonstrates the willingness of thousands of families to leave the city permanently to live and work in the countryside and anyone who doubts that rural Ireland now offers a better life than its capital has only to visit a mainline station on a Friday evening to see the exodus of thousands of people, mostly students or singles in their twenties with jobs and flats in the city, on the extra trains 'home'. Dozens of long distance coaches carry many more. Everyone pours back into Dublin on Sunday night. "It wasn't like this in my day" a friend in his fifties remarks. "We couldn't wait to live in Dublin. It was where all the life was and all our friends. Going to see one's parents was a chore. Now, the life is in the country towns and the kids can't wait to get home."

Rural Resettlement Ireland Ltd., Kilbaha, Kilrush, Co. Clare. Tel. 065 58034, fax. 065 58242, e-mail rri@iol.ie

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There will also be profound repercussions for the community and the family. "Work done by members of households is the central process around which society is structured" Pahl says. This implies that if work is no longer available to a household's members, the structure of society will collapse or change, as has been happening. Wendell Berry, the poet, novelist, university lecturer and Kentucky tobacco farmer, makes exactly this point in a 1988 essay, *The Work of Local Culture* 19 in which he states that "If there is no household or community economy, then family members and neighbours are no longer useful to each other. When people are no longer useful to each other, then the centripetal force of family and community fails, and people fall into dependence on exterior economies and organizations".

And if the labour of a young adult is no longer needed, he or she will go away, rarely to return, breaking the local succession of the generations. In many communities, children are educated to enable them to move away. "It is felt that this is what they should do.... and this applies as much to urban families as to rural ones" Berry writes. "In the present urban economy, the parent-child succession is possible only among the economically privileged. The children of industrial underlings are not likely to succeed their parents at work and there is no reason for them to wish to do so."

As the children depart, generation after generation, the old stories are no longer told and their birthplace forgets its history and loses its culture:

The loss of local culture is, in part, a practical loss and an economic one. For one thing, such a culture contains, and conveys to succeeding generations, the history of the use of the place and the knowledge of how the place may be lived in and used. For another, the pattern of reminding implies affection for the place and respect for it, and so, finally, the local culture will carry the knowledge of how the place may be well and lovingly used and, moreover, the implicit command to use it only well and lovingly. The only true and effective 'operator's manual for spaceship earth' is not a book that any human will ever write; it is hundreds of thousands of local cultures.

The message of this book is that techniques already exist or can be devised which will lead to a better balance between the industrial world and the local community, that regional cultures can be re-invented and restored and that children can remain in their native place. However, this will only be possible if a handful of people in each of perhaps a hundred communities are prepared to commit themselves to bringing the re-balancing about. Except in a few exceptional communities, all the approaches described in this book have been used in isolation from each other so that there has been no opportunity for synergy to build up. What we must do now is develop ways of using several techniques together so that their true potential can be found. There are tantalising hints about what this might make possible in some of the previous chapters.

Only when a community somewhere has demonstrated that it is possible to build an independent, parallel economy which works really well will large numbers of other communities have the faith to begin to build one themselves and will politicians give the new approach even lukewarm support. For those people who believe that the industrial economy is unsustainable and will continue to threaten livelihoods and democracy if left uncontrolled, there could be no more important task than working in their communities to demonstrate that there is an alternative path for the world.

Yet, strangely, we are reluctant to commit ourselves to doing so. Most of us old enough to be in a position of influence believe, or at least hope, that the environmental and social problems generated by the industrial system can be solved, that the present levels of unemployment and instability in the world economy will prove temporary and that life will resume behaving in the way it did in our childhood, a way we feel we understand. We don't want to have to work out new patterns of behaviour and face new uncertainties. Nor do we want to turn our backs on the prospect of reaping the lavish monetary rewards that the mainstream system promises a chosen few. However, for as long as we chase well-paid jobs in the world economy or believe that the relative safety and certainty that people in many industrial countries once enjoyed can be recreated by politicians who fail to realise why the changes they have made since 1970 have been so destructive, we will put off attempting to build the small-scale economies we must have if we are to secure the future. We will also fail to adopt the radically different attitudes required to make such economies a success.

We cling to our hope that radical changes can be avoided despite the fact that the evidence for the mainstream's failure is all too apparent and even government posts and jobs in profitable companies with dominant market positions are no longer secure. In Ireland in the past, for example, Guinness workers were widely envied their job security, high pay and superior medical and other benefits. Today, they are still highly paid, earning about three times the average industrial wage, but their job security has gone although the company still has 90% of the Irish beer market, invests £40m. a year in its Irish breweries and is hugely profitable: it made £106m. before tax in Ireland on sales of £704m. in 1992. Yet, despite this strength, Guinness has reduced its workforce at its main brewery, St. James's Gate in Dublin, from almost 4,000 in the 1960s to 900 today by a combination of voluntary and involuntary redundancy schemes. "We need to be competitive on an international level" a company spokesman explained in 1993 when he announced a further redundancy programme which will cut employment at the brewery to 500 by the end of the century.

Exactly the same has happened in the US, where the 500 biggest firms - those listed in the Fortune 500 - dispensed with the services of 4.4 million employees between 1980 and 1993. In Britain, hugely profitable companies not directly exposed to international competition including British Gas, BT, the high-street banks and the regional power companies have recently made tens of thousands of well-paid, well-pensioned employees redundant. The result is that for larger and larger numbers of people, secure jobs are just not available. According to Paul Gregg and Jonathan Wadsworth of the Centre for Economic Performance at the London School of Economics and the National Institute for Economic and Social Research <sup>20</sup>, only 35.9% of the workforce had secure, full-time positions in 1993 compared with 55.5% in 1975. A two-tier job market was developing, they said, the lower tier characterised by 'higher labour turnover among the least skilled, the young, and the old and those in atypical employment.' Overall, the length of time people held a particular job had fallen by 20%.

These changes are both the challenge and the opportunity. They mean that for many people, including large numbers of the middle class, the type of parallel, local economy we have been discussing is no longer some sort of cranky, optional extra but, in fact, the only realistic way they can build a satisfactory future for themselves and their families.

But I think it unlikely that a satisfactory community would emerge if we set out to build a local economy solely because there was no realistic alternative. Other motives need to be paramount. Perhaps the industrial system's most serious defect is that it fails to recognise that human beings, first and foremost, are social animals who can only be happy and healthy if they belong to a wide range of groups including a family, a community, a circle of friends, a region and a country. Because of this failure, it has put a strong economy before a strong society and bribed us to tolerate the breakdown of social structures and our conversion to single, separate economic agents by offering us consumer goods in compensation. Indeed, it has created a vicious circle, in which the greater the inner emptiness we feel from being cut off from other people by the demands of our work, the

harder we need to apply ourselves to that work in order to earn sufficient to buy the system's products in the hope that they will alleviate our basic dissatisfaction with ourselves and the lives we are living.

We must escape this circle. Consequently, whatever we do locally, we must never forget we are trying to build a society rather than an economy. This means that idealism must be at least as important a part of our mental attitude as realism and the prospect of joy and fulfilment for ourselves and our friends must be a much stronger motive than worry about what will happen if things continue as they are.

To the extent that the industrial system's emphasis on individual achievement and competition - which has been described as a process of achieving one's goals by preventing others reaching theirs - either bribes or forces us to do things which damage others, it has to be condemned. The way it makes people feel failures about outcomes which were never under their control is extraordinarily harmful too. In short, the system has damaged us psychologically with both its rewards and its penalties and kept us from relating properly with one another. Its cost has been high, as Robert Lane's paper<sup>21</sup>, *The Road Not Taken*, on the relationship between the recent increase in the incidence of mental depression and the breakdown of social links clearly shows.

The fact is that there is no such thing as an individual achievement. Each of us is not only the product of millions of years of evolution but was shaped and affected by other people from the moment we were conceived. As a result, the ideas, attitudes and skills we possess are never truly our own; they are the product of chance, history, genetic inheritance and other people's influences. This makes our contribution, whatever it is, that of the lens - we have merely brought a particular set of factors to a focus. Had Einstein recognised this when, towards the end of his life, he said "I have concentrated too much on the 'I' and not enough on the 'we'"?

Humans are only fully human when we are involved with each other and the majority of us find happiness most easily through collective achievement. If we join our neighbours in the adventure of building a local economy that supplies and supports us all, true happiness, deep joy, is waiting to be found.

### *Notes*

1 'Does Studying Economics Inhibit Co-operation?' by Robert Frank, Thomas Gilovich and Denis Regan, *Journal of Economic Perspectives*, Spring, 1993.

2 'The Victims of Vanity' in *Down to Earth* magazine, New Delhi, 15/3/94.

3 This is being done under the framework of Local Agenda 21, the community-level part of Agenda 21, the massive international action plan to promote sustainable development adopted at *Short Circuit* by Richard Douthwaite: Chapter Seven

the UN Earth Summit in Rio in 1992. The Sustainable Seattle approach was introduced to Britain by the Sustainable Development Unit of the United Nations Association ( 3, Whitehall Court, London, SW1A 2EL, tel. 0171 839 1784, fax 0171 930 5893) and a 1995 report Sustainability Indicators Research Project: Consultants' Report of the Pilot Phase on how seven councils - Hertfordshire, Merton, Oldham, Fife, Bedfordshire, Leicester and Strathclyde - fared in their first year prepared in association with the New Economics Foundation and Touche Ross Management Consultants is available from the Local Government Management Board, 5th Floor, The Arndale Centre, Luton, Bedfordshire LU1 5BR, tel. 01582 451166, fax 01582 412525, price £15. The UNA has also helped hundreds of villages and parishes in Britain to take stock of their local services, facilities and environmental health using household and individual questionnaires devised and delivered by local people. A pack containing manuals, IBM-compatible computer software, sample questionnaire material and access to a user help line costs £50.

4 (New Society Publishers: Philadelphia, 1991).

5 5 Quoted by David Morris in *The Mondragon Co-operative Corporation*, (Institute for Local Self-Reliance: Washington DC, July, 1992).

6 Ibid.

7 'Foreign players eye Mondragon', *The European*, 19/5/95.

8 Talk given at 26th Deutscher Evangelischer Kirchentag, Hamburg, 15/6/95.

9 (Routledge: London, 1985), p.277.

10 G.G.Coulton, *Medieval Panorama*, (Cambridge University Press: Cambridge, 1945), p.291

11 (Methuen: London, 1984), p.16.

12 Draft article, 'A Home in the Briarpatch', ca. 1992.

13 (Random House: New York 1974). "Do the right thing and the money will follow" conveys the spirit of the book.

14 In 'A New Way to do Business', *Resurgence*, No. 98, May/June, 1983. Reprinted in *Health & Community*, Mike Money, (Green Books: Totnes, 1993).

15 Telephone interview.

16 (Ten Speed Press: Berkeley, California, 1989).

17 Quoted in *The Economist*, 18/2/95

18 (Blackwell: Oxford 1984).

19 In *What are People For?* (North Point Press: San Francisco, 1990).

*Short Circuit* by Richard Douthwaite: Chapter Seven

20 Reported in *The Guardian*, 3/4/95

21 'The Road Not Taken: Giving Friendship Priority over Commodities' (October, 1994);  
Available from Professor Lane, Dept. of Political Science, Yale University, PO Box 208301, New  
Haven, CT 06520.



## EPILOGUE

### The Future, and it Works

*Last updated February 2003*

Maleny, a small Australian town that is using more of the techniques discussed in this book than perhaps anywhere else in the world, lies a thousand feet up in the Blackhall Mountains about fifty miles as the crow flies north of Brisbane. To get there, you turn west off the Bruce Highway at Landsborough and drive for eleven miles along a twisting road that climbs up from the coastal plain along a steep spur and, as it gets higher, provides superb views of the Sunshine Coast and Moreton Bay behind. Near the



*Sunlight uplands: the rolling countryside near Maleny, Queensland, Australia. (Photo: Jan Tilden)*

top, the carriageway narrows sharply as it skirts a cliff and there is an abrupt change in vegetation, the gum trees and coarse brown grass of the plain being replaced by rolling green hills and remnants of tropical forest. A little further on, the road turns down just before Bald Knob Lookout and runs past four or five guest houses and restaurants before entering the town.

"When I came here in 1974, the road was narrower and even more winding as it followed the original wagon track built to take local butter to market" says Jan Tilden, who has a doctorate in sociology and works for *The Range News*, the local newspaper. The butter she refers to was produced in a co-operative creamery opened in 1904 by farmers who had moved into the area after the forests of cedar, southern beech and hoop and Bunya pines had been logged in the last quarter of the 19th Century. By early 1970s, however, most of the local farmers had ceased dairying and switched to beef in response to a steep decline in world butter and cheese prices during the 1960s. The switch meant that fewer farmworkers were needed and cottages fell vacant as they and their families moved away. In other cases, holdings were amalgamated, leaving farmhouses empty. Empty, that is, until the area was discovered by young, well-educated people from the cities looking for

a simpler, less materialistic life. "I was one of the first of the new wave of settlers to move to the Maleny plateau" Tilden says. "The old share-farmer's cottage I rented for \$6 a week had no running water and unreliable electricity. The farmer who owned it was embarrassed to charge me anything at all."

Jill Jordan, a psychologist who moved to Maleny three or four years before Tilden says that the local people did not know what to make of their new neighbours. "We were looked on as hippies and treated with great suspicion" she says. Tilden agrees: "They were tolerant if not exactly welcoming. If nothing else, we citified newcomers were a source of good gossip."

One source of complaint among the incomers was the poor range of foods available at the single local supermarket and early in 1979, at the suggestion of Lorna Wilson, who had arrived from the US where she had been a member of a food co-op, a meeting was held to discuss how this deficiency could be overcome. After considerable heart-searching - "None of us had any business experience" Jordan says - the idea of a co-op was accepted and a core group of three men and three women formed to establish it. "We wanted to eat lentils, brown rice and fresh vegetables, not the range of tired tinned produce then offered by the supermarket" Tilden explains. "At our first meeting paper was passed around and people wrote down what they ate and that became the basis for our stock list."

The decision to meet the group's needs by establishing a co-operative rather than a conventional private business was important for what was to follow. So was the core group's brave decision that, rather than operating from someone's home, they should rent a vacant shop on Maleny's main street, Maple Street, so that the general public could trade there too and the venture could serve as a community information centre and meeting place. A small amount of capital was raised by selling shares, equipment and shopfittings were donated, and the business opened in January 1980 with Jordan as manager. Slowly, locals began bring in surplus produce to sell and after a year it was trading sufficiently well for her to draw a salary.

"Some long-time residents came on the [co-op] board right away, happy to have a local outlet for their eggs and vegetables" Tilden says. "One of them, George Cassells, who was in his early sixties at the time, became financial manager. This helped bridge the gap between old and new Maleny residents."

The co-op's success made the group associated with it feel that they could tackle other things and when Jordan returned from a Permaculture conference in Tasmania in 1983 with the idea of starting a credit union to recycle local savings, the level of enthusiasm was such that the Maleny and District Community Credit Union Ltd. opened on the opposite side of Maple Street only five months later under her management and received \$53,000 in deposits on its first day. Three years later deposits topped a million dollars and by early 1998 it had 4,200 members and assets of \$9m. Amongst other things, its loans had financed over thirty co-operatives and small businesses in the town and thus helped in the creation of around 200 part- and full-time jobs. Other beneficiaries had

included people building houses in the internationally-known Crystal Waters Permaculture Village, half an hour's drive from Maleny, who would have found it difficult to get loans from any other source. By 1998, the credit union had enough resources to make house loans of up to \$120,000, enough to buy a small plot of land and to erect a modest house.

So big had the credit union become, in fact, that when we visited it in October 1997, several of the staff expressed worries that if it grew any more, its dealings with its members would become less personal. "We could become just like the bank I used to work for" a loan officer said. "We'd like to open a branch in an outlying town where the bank has closed but we probably won't because of that danger."

"The credit union is the lifeblood of the community" Jordan says. "Many of the people who borrowed from it would have been unable to get loans from any other source. A proportion of its annual surplus is paid into funds for environmental and co-operative education. It also has a community development fund which the members decide how to allocate each year, and a community assistance fund, which can be distributed in times of hardship, such as a fire or an accident, to anyone in the community whether they are members or not."

In 1987, news of Michael Linton's experiments with LET systems reached Maleny through the permaculture movement and Jordan paid her own fare to Canada to see how they worked. As a result, the first LETS in Australia opened in Maleny in October 1987. "It took off with a rush. People were ready for it" she says. Ten years later, the system had 1090 members trading in its unit the Bunya, which is named after a local pine tree from which the Aborigines collected edible nuts. There were also 22 other active LETS systems in Queensland, most of which had been helped to start up by people from Maleny. "LETS is not just an extremely powerful economic tool but a magnificent social one" Jordan says. "Older people often find themselves living alone on fixed incomes without the strength to undertake some tasks necessary for their dignity and survival. They feel useless, too, because, although they have built up a life-time of skills, they have no way of passing them on to younger people. LETS changes all that. It allows the elderly to earn credits by teaching their skills and then to employ energetic young people to get the physical work done."

In 1988 and 1989, several more co-ops were established, including Wastebusters, which operates a recycling depot in collaboration with the local council, and Mountain Fare, which trains women with no work experience and which began by growing and marketing herbs and then moved into catering and frozen food production. All this activity encouraged the Queensland government to provide the capital to turn the old co-operative butter factory, which had closed in 1978, into an incubator unit for small businesses. This opened in 1991 with Jordan on the board and two years later, one firm established there had already outgrown it and moved into the outside world. Other businesses in the centre included a publisher and two food manufacturers, Pure Pasta Products, which uses organic grain, and Maleny Clean Cuisine which makes sauces and

chutneys from organic ingredients. The centre's manager gives technical and moral support to the tenant businesses which share secretarial services. More recently, a telecottage has been established there to give tenants access to marketing and technical information.

"Early in 1998 there were twenty-one co-ops and cooperative community organisations in the town including a community radio station and a licensed club which can serve as a cooperative training centre and meeting place by day and as a restaurant and venue for local musicians at night.

"The latest news", Jordan told us by e-mail, "is that there are plans afoot to build a cooperative development centre. This will house the cooperatives and, later on, provide a venue for educational tourism. The Maple Street site on which the Food Co-op and the Co-op Club currently stand would be used for this with the Credit Union providing the finance. The food co-op is planning a shop selling the equipment people need to lead a low-impact lifestyle there. It's thrilling."<sup>1</sup>

It would be wrong to suggest that these co-ops transformed the declining town of the early 1970s into today's vital, vibrant community by themselves although they undoubtedly helped. Derek Sheppard, a former economic development officer with the Queensland government who resigned and moved to Maleny to escape 16-hour working days, suggests that an influx of retired people from the mid-1970s onwards played a much greater role in halting the town's economic decline. However, the growing number of what Sheppard calls 'superannualists' has created problems for those seeking to build an alternative economy in the town. "The farmers are right-wing but they could work with the alternatives" Sheppard says. "The retirees are right-wing too but they won't accept attempts to find an alternative way. It's damn annoying. When we set up the club, the National Party fought the project every step of the way. And the folk festival, which is the biggest in Australia and brought \$2m. into the town, has had to move to Woodford ten miles away. The retirees won't accept that there are other people in the community who have to make a living."

So, although the co-operative movement in the town has become, according to Jordan, 'an incredible political force' the growing right-wing element was powerful enough to deny her re-election to the council in March 1994 after she had served a three-year term. "I was unseated by the very forces that I originally went into Council to get rid of! Ugh!" she wrote to me shortly afterwards. "This shows how much there is to do in the local sphere in terms of education..."

This is certainly true. Catering for tourists provides a growing number of Maleny people with their incomes and the idea that the town should reduce rather than increase its dependence on the outside world is still unfamiliar to most residents. "There's no widespread realisation even that it's a good idea to shop locally" Sheppard says. "We're only a half-hour drive from the coast, where big shops offer a wide selection". And

within the alternative sector itself, there is still much to be done. "The LETS system is only marginally useful" Sheppard comments. "It has had no real impact on the availability of necessities like groceries and foodstuffs. Builders and plumbers are also hard to get for Bunyas because they can get all the work they can handle for national currency."

Jordan and other 'alternatives' are trying to overcome these difficulties by getting as many people as possible involved in their various ventures. "Constant communication is the key to success" she says. "It is imperative to inform the broader community about every phase of a project so as to maximise their opportunities for involvement. Any organisation should have a broad base to ensure its stability. We ask people to become involved and stress that the proposals should enable everyone to make more income."

Having a broadly-based structure is one of Jordan's four golden rules for successful community economic development. The others are:

- # Start small, with the skills and resources available within the community. Better a small success than a grand failure.

- #. Draw on other people's experience. Have someone from your group spend time learning 'on the job' from a similar venture even if it means travelling to do so.

- #. Build up a system of mutual support within your organisation and, as you bring up more organisations, between organisations.

This last principle is, in fact, crucial to what the co-ops have achieved. Any one venture, such as the food co-op, can only deliver limited results to the community as a whole no matter how big it becomes. However, once several organisations are operating, a synergy can develop between them with each contributing to the others' success so that the whole becomes greater than the sum of the parts and the range of possibilities open to people involved in them is radically transformed. "We really began to notice this from 1989 onwards particularly in relation to people's skills. There are numerous stories of individuals who had never written a business letter or touched a calculator before coming into one of the Maleny co-ops who are now comfortable running their own micro- or mini-businesses or managing a multi-million dollar operation like the credit union. We have created an enterprise culture, a whole new sphere in which people can function." she says.

Tilden agrees. "The last twenty years have been a time of rapid population growth and economic change in Maleny" she says. "The co-ops have prevented people feeling that they are powerless, that they have lost the plot. The enterprise culture here empowers people. As a result, when the Red Rooster [a fast food chain] opened, we were able to

exert considerable influence over the way they operated and their employees' conditions."

But even given the synergy between them, the co-ops would not have survived and prospered without an appreciable input of unpaid, volunteer labour. "The need for voluntary input has characterised all Maleny co-ops to a greater or lesser extent, particularly in the early days" Tilden says. "For some years now, all workers have been paid at union-approved rates but co-op directors are still volunteers and members are encouraged to give service to keep prices at competitive levels. Some people question whether our co-ops can be considered viable businesses when they rely on volunteers but how is 'viability' [to be] defined in a business struggling to be ecologically sustainable and socially just in an unsustainable and unjust global economy?"

"Maleny is a town made up of communities" says Derek Sheppard who, with his wife Joanne, moved there because of the town's focus on arts and crafts. Now, besides being a director of the radio station co-op, Access FM, and the arts co-op, he is a driving force behind Maleny District Community Learning Centre Co-operative Society Ltd., which is setting up a school modelled on the Sudbury Valley School in the US for pupils between 4 and 19 - and adults outside school hours - at which everyone will decide each day what they wish to learn. "The depth and extent of the community in Maleny is quite wonderful. The commitment of people to ideals and their practical implementation together with the level of support which surrounds it all is exciting. It helps drive me on, even when the road becomes a bit bumpy" he wrote in the Autumn 1995 issue of the Maleny co-ops' regular magazine, *Review*.

"Maleny will tolerate variations in people's behaviour and is remarkable for its support mechanisms" he told me. "If you've got a plan and you take it to the community, you'll get support - mostly of the moral variety - to make it a reality."

In short, Maleny is a town where people can learn, extend and fulfil themselves by involving themselves with each other. Who can ask more of their home-place than that? "Maleny is nowhere special" Jill Jordan says, "it's just the product of a process that can be followed anywhere."

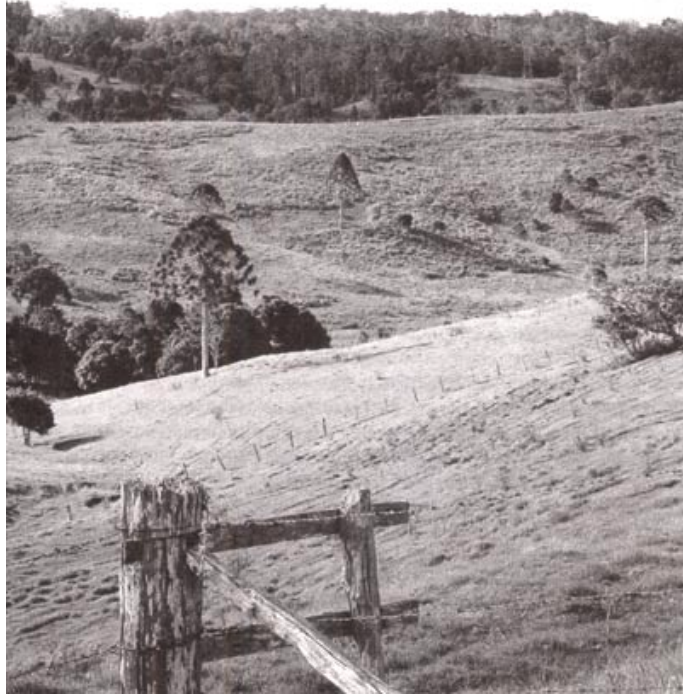
1. E-mail, 4th March, 1998

## EPILOGUE

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One source of complaint among the incomers was the poor range of foods available at the single local supermarket and early in 1979, at the suggestion of Lorna Wilson, who had arrived from the US where she had been a member of a food co-op, a meeting was held to discuss how this deficiency could be overcome. After considerable heart-searching - "None of us had any business experience" Jordan says - the idea of a co-op was accepted and a core group of three men and three women formed to establish it. "We wanted to eat lentils, brown rice and fresh vegetables, not the range of tired tinned produce then offered by the supermarket" Tilden explains. "At our first meeting paper was passed around and people wrote down what they ate and that became the basis for our stock list."

The decision to meet the group's needs by establishing a co-operative rather than a conventional private business was important for what was to follow. So was the core group's brave decision that, rather than operating from someone's home, they should rent a vacant shop on Maleny's main street, Maple Street, so that the general public could trade there too and the venture could serve as a community information centre and meeting place. A small amount of capital was raised by selling shares, equipment and shopfittings were donated, and the business opened in January 1980 with Jordan as manager. Slowly, locals began bring in surplus produce to sell and after a year it was trading sufficiently well for her to draw a salary.

"Some long-time residents came on the [co-op] board right away, happy to have a local outlet for their eggs and vegetables" Tilden says. "One of them, George Cassells, who was in his early sixties at the time, became financial manager. This helped bridge the gap between old and new Maleny residents."

The co-op's success made the group associated with it feel that they could tackle other things and when Jordan returned from a Permaculture conference in Tasmania in 1983 with the idea of starting a credit union to recycle local savings, the level of enthusiasm was such that the Maleny and District Community Credit Union Ltd. opened on the opposite side of Maple Street only five months later under her management and received \$53,000 in deposits on its first day. Three years later deposits topped a million dollars and by early 1998 it had 4,200 members and assets of \$9m. Amongst other things, its loans had financed over thirty co-operatives and small businesses in the town and thus helped in the creation of around 200 part- and full-time jobs. Other beneficiaries had



included people building houses in the internationally-known Crystal Waters Permaculture Village, half an hour's drive from Maleny, who would have found it difficult to get loans from any other source. By 1998, the credit union had enough resources to make house loans of up to \$120,000, enough to buy a small plot of land and to erect a modest house.

So big had the credit union become, in fact, that when we visited it in October 1997, several of the staff expressed worries that if it grew any more, its dealings with its members would become less personal. "We could become just like the bank I used to work for" a loan officer said. "We'd like to open a branch in an outlying town where the bank has closed but we probably won't because of that danger."

"The credit union is the lifeblood of the community" Jordan says. "Many of the people who borrowed from it would have been unable to get loans from any other source. A proportion of its annual surplus is paid into funds for environmental and co-operative education. It also has a community development fund which the members decide how to allocate each year, and a community assistance fund, which can be distributed in times of hardship, such as a fire or an accident, to anyone in the community whether they are members or not."

In 1987, news of Michael Linton's experiments with LET systems reached Maleny through the permaculture movement and Jordan paid her own fare to Canada to see how they worked. As a result, the first LETS in Australia opened in Maleny in October 1987. "It took off with a rush. People were ready for it" she says. Ten years later, the system had 1090 members trading in its unit the Bunya, which is named after a local pine tree from which the Aborigines collected edible nuts. There were also 22 other active LETS systems in Queensland, most of which had been helped to start up by people from Maleny. "LETS is not just an extremely powerful economic tool but a magnificent social one" Jordan says. "Older people often find themselves living alone on fixed incomes without the strength to undertake some tasks necessary for their dignity and survival. They feel useless, too, because, although they have built up a life-time of skills, they have no way of passing them on to younger people. LETS changes all that. It allows the elderly to earn credits by teaching their skills and then to employ energetic young people to get the physical work done."

In 1988 and 1989, several more co-ops were established, including Wastebusters, which operates a recycling depot in collaboration with the local council, and Mountain Fare, which trains women with no work experience and which began by growing and marketing herbs and then moved into catering and frozen food production. All this activity encouraged the Queensland government to provide the capital to turn the old co-operative butter factory, which had closed in 1978, into an incubator unit for small businesses. This opened in 1991 with Jordan on the board and two years later, one firm established there had already outgrown it and moved into the outside world. Other businesses in the centre included a publisher and two food manufacturers, Pure Pasta Products, which uses organic grain, and Maleny Clean Cuisine which makes sauces and

chutneys from organic ingredients. The centre's manager gives technical and moral support to the tenant businesses which share secretarial services. More recently, a telecottage has been established there to give tenants access to marketing and technical information.

"Early in 1998 there were twenty-one co-ops and cooperative community organisations in the town including a community radio station and a licensed club which can serve as a cooperative training centre and meeting place by day and as a restaurant and venue for local musicians at night.

"The latest news", Jordan told us by e-mail, "is that there are plans afoot to build a cooperative development centre. This will house the cooperatives and, later on, provide a venue for educational tourism. The Maple Street site on which the Food Co-op and the Co-op Club currently stand would be used for this with the Credit Union providing the finance. The food co-op is planning a shop selling the equipment people need to lead a low-impact lifestyle there. It's thrilling."<sup>1</sup>

It would be wrong to suggest that these co-ops transformed the declining town of the early 1970s into today's vital, vibrant community by themselves although they undoubtedly helped. Derek Sheppard, a former economic development officer with the Queensland government who resigned and moved to Maleny to escape 16-hour working days, suggests that an influx of retired people from the mid-1970s onwards played a much greater role in halting the town's economic decline. However, the growing number of what Sheppard calls 'superannualists' has created problems for those seeking to build an alternative economy in the town. "The farmers are right-wing but they could work with the alternatives" Sheppard says. "The retirees are right-wing too but they won't accept attempts to find an alternative way. It's damn annoying. When we set up the club, the National Party fought the project every step of the way. And the folk festival, which is the biggest in Australia and brought \$2m. into the town, has had to move to Woodford ten miles away. The retirees won't accept that there are other people in the community who have to make a living."

So, although the co-operative movement in the town has become, according to Jordan, 'an incredible political force' the growing right-wing element was powerful enough to deny her re-election to the council in March 1994 after she had served a three-year term. "I was unseated by the very forces that I originally went into Council to get rid of! Ugh!" she wrote to me shortly afterwards. "This shows how much there is to do in the local sphere in terms of education..."

This is certainly true. Catering for tourists provides a growing number of Maleny people with their incomes and the idea that the town should reduce rather than increase its dependence on the outside world is still unfamiliar to most residents. "There's no widespread realisation even that it's a good idea to shop locally" Sheppard says. "We're only a half-hour drive from the coast, where big shops offer a wide selection". And

within the alternative sector itself, there is still much to be done. "The LETS system is only marginally useful" Sheppard comments. "It has had no real impact on the availability of necessities like groceries and foodstuffs. Builders and plumbers are also hard to get for Bunyas because they can get all the work they can handle for national currency."

Jordan and other 'alternatives' are trying to overcome these difficulties by getting as many people as possible involved in their various ventures. "Constant communication is the key to success" she says. "It is imperative to inform the broader community about every phase of a project so as to maximise their opportunities for involvement. Any organisation should have a broad base to ensure its stability. We ask people to become involved and stress that the proposals should enable everyone to make more income."

Having a broadly-based structure is one of Jordan's four golden rules for successful community economic development. The others are:

- # Start small, with the skills and resources available within the community. Better a small success than a grand failure.

- #. Draw on other people's experience. Have someone from your group spend time learning 'on the job' from a similar venture even if it means travelling to do so.

- #. Build up a system of mutual support within your organisation and, as you bring up more organisations, between organisations.

This last principle is, in fact, crucial to what the co-ops have achieved. Any one venture, such as the food co-op, can only deliver limited results to the community as a whole no matter how big it becomes. However, once several organisations are operating, a synergy can develop between them with each contributing to the others' success so that the whole becomes greater than the sum of the parts and the range of possibilities open to people involved in them is radically transformed. "We really began to notice this from 1989 onwards particularly in relation to people's skills. There are numerous stories of individuals who had never written a business letter or touched a calculator before coming into one of the Maleny co-ops who are now comfortable running their own micro- or mini-businesses or managing a multi-million dollar operation like the credit union. We have created an enterprise culture, a whole new sphere in which people can function." she says.

Tilden agrees. "The last twenty years have been a time of rapid population growth and economic change in Maleny" she says. "The co-ops have prevented people feeling that they are powerless, that they have lost the plot. The enterprise culture here empowers people. As a result, when the Red Rooster [a fast food chain] opened, we were able to

exert considerable influence over the way they operated and their employees' conditions."

But even given the synergy between them, the co-ops would not have survived and prospered without an appreciable input of unpaid, volunteer labour. "The need for voluntary input has characterised all Maleny co-ops to a greater or lesser extent, particularly in the early days" Tilden says. "For some years now, all workers have been paid at union-approved rates but co-op directors are still volunteers and members are encouraged to give service to keep prices at competitive levels. Some people question whether our co-ops can be considered viable businesses when they rely on volunteers but how is 'viability' [to be] defined in a business struggling to be ecologically sustainable and socially just in an unsustainable and unjust global economy?"

"Maleny is a town made up of communities" says Derek Sheppard who, with his wife Joanne, moved there because of the town's focus on arts and crafts. Now, besides being a director of the radio station co-op, Access FM, and the arts co-op, he is a driving force behind Maleny District Community Learning Centre Co-operative Society Ltd., which is setting up a school modelled on the Sudbury Valley School in the US for pupils between 4 and 19 - and adults outside school hours - at which everyone will decide each day what they wish to learn. "The depth and extent of the community in Maleny is quite wonderful. The commitment of people to ideals and their practical implementation together with the level of support which surrounds it all is exciting. It helps drive me on, even when the road becomes a bit bumpy" he wrote in the Autumn 1995 issue of the Maleny co-ops' regular magazine, *Review*.

"Maleny will tolerate variations in people's behaviour and is remarkable for its support mechanisms" he told me. "If you've got a plan and you take it to the community, you'll get support - mostly of the moral variety - to make it a reality."

In short, Maleny is a town where people can learn, extend and fulfil themselves by involving themselves with each other. Who can ask more of their home-place than that? "Maleny is nowhere special" Jill Jordan says, "it's just the product of a process that can be followed anywhere."

1. E-mail, 4th March, 1998